cc Don Kell.
Pat Lewis

BOARD OF COUNTY COMMISSIONERS

DEPARTMENT OF SOLID WASTE MANAGEMENT
2800 110TH AVENUE NORTH
ST. PETERSBURG, FLORIDA 33702
PHONE (813) 825-1565

March 12, 1984

Mr. Hamilton S. Oven, Jr., P.E., Administrator
Power Plant Siting Section
State of FL Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32302-8241

Dr. Rick Garrity, District Manager
State Department of Environmental Regulation
Southwest District Office
7601 Highway 301, North
Tampa, FL 33610-9544

Re: Environmental Monitoring Program--Pinellas County Resource Recovery Facility

Dear Mr. Oven:

The Environmental Monitoring Program implemented in compliance with the conditions of Certification (COC) for the Pinellas County Resource Recovery Facility is fully operational. Enclosed, please find a xerox copy of a report on the "as installed" plan. Appendix C of this document features the analytical results for the first quarterly regimen. This is submitted in accordance with Section XIV.D.3 of the COC.

If you have any questions, please feel free to contact me.

Sincerely,

W. W. Dasher, Director
Public Works Operations

cc: W. Gray Dunlap, County Attorney
G. E. Jordan, Dir, PW&U
HDR
WWD:ltl

STATE OF FLORIDA

Department of Administration

Division of Administrative Hearings

Oakland Building, 2009 Apalachee Parkway

TALLAHASSEE

32301

Bob Graham
Governor

Nevin G. Smith
Secretary of Administration

March 8, 1984

Victoria Tschinkel, Secretary
Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Re: Case No. 83-2355
In Re: Pinellas County Resource Project:
Application for Power Plant Site
Certification.

Dear Ms. Tschinkel:

Enclosed are copies of my Stipulation to Recommended Order and Recommended Order Regarding Site Certification entered in the above-styled case.

Please furnish the Division of Administrative Hearings a copy of the Final Order entered in this case.

Sincerely,

WILLIAM E. WILLIAMS
Hearing Officer

/mc

Enclosures

xc: Honorable Bob Graham
Cabinet Members
Van B. Cook, Esq.
Julia D. Cobb, Esq.
C. Laurence Keesey, Esq.
Mr. Tom Herndon
Hamilton S. Oven, Jr., P.E.
Bonnie Davis, Esq.
Karen A. Lloyd, Esq.

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE:	]	
	]	
Pinellas County Resource Project: Application for Power Plant Site Certification.	]	DOAH CASE NO.: 83-2355
	]	
	]	
	]	
	]	

STIPULATION TO RECOMMENDED ORDER

The Undersigned counsel to the parties to this proceeding hereby stipulate to the entry of the attached Recommended Order regarding site certification.

VAN B. COOK
Chief Assistant County Attorney
315 Court Street
Clearwater, Florida 33516
For the Applicant, Pinellas County

JULIA D. COBB
2600 Blair Stone Road
Tallahassee, Florida 32301
Assistant General Counsel for
Department of Environmental Regulation

C. LAURENCE KEESEY
2571 Executive Center Circle East
Tallahassee, Florida 32301
For the Department of Community Affairs

STATE OF FLORIDA

DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: Pinellas County Resource Project; Application for Power Plant Site Certification

Case No. 83-2355

RECOMMENDED ORDER
REGARDING SITE CERTIFICATION

Pursuant to notice, the Division of Administrative Hearings, by its duly designated Hearing Officer, William E. Williams, held a public hearing in this cause on February 29, 1984, in Clearwater, Florida.

APPEARANCES

For the Applicant:	Van B. Cook Chief Assistant County Attorney 315 Court Street Clearwater, Florida 33516
For the Department of Environmental Regulation:	Julie Cobb Assistant General Counsel 2600 Blair Stone Road Tallahassee, Florida 32301
For the Department of Community Affairs:	C. Laurence Keesey, Esq. 2571 Executive Center Circle East Tallahassee, Florida 32301
For Southwest Florida Water Management District:	None
For Public Service Commission	None

On or about September 6, 1983, the Applicant, Pinellas County, filed an amended application for power plant site certification to expand its existing resource recovery facility with the Department of Environmental Regulation. The Division of Administrative Hearings received a request from the Department of Environmental Regulation for the appointment of a Hearing Officer to conduct the hearings required by Chapter 403, Part II, Florida Statutes. On September 19, 1983, the Division of Administrative Hearings received a statement from the Department of Environmental Regulation declaring the application to be complete as of September 6, 1983.

On January 19, 1984, the Applicant filed a Motion to Expedite the certification hearing required by Chapter 403, Part II, Florida Statutes. On January 25, 1984, the undersigned entered an Order scheduling a certification hearing for February 29, 1984 and requiring a pre-hearing stipulation, and issued a Notice of Hearing. A pre-hearing stipulation was filed on or about February 24, 1984.

A certification hearing as required by Section 403.508(3), Florida Statutes, was held pursuant to proper notice in Clearwater, Florida. The notice published in the Florida Administrative Weekly was four days less than the required 30 day notice. Upon motion of the Applicant, and no other party entering an objection, this defect was waived. The purpose of that hearing was to receive testimony and evidence concerning whether the location and operation of the proposed facility would produce adverse effects on human health, environment, the ecology of the land and its wildlife, and the ecology of State waters and their aquatic life;
would assure the citizens of Florida that operational safeguards are technically sufficient for their welfare and protection; and would effect a reasonable balance between the need for the facility and the environmental impact resulting from construction and operation of the facility; as well as providing abundant, low-cost electrical energy. The hearing included an examination of the following:

The necessity for expanded electrical generation;

The expected environmental impact from construction and operation of the resource recovery facility;

Operational safeguards of the facility;

The availability of abundant, low-cost electrical energy;

Other public interests and issues relevant to certification of the proposed site.

In addition, evidence relating to best available control technology and the prevention of significant deterioration of ambient air quality was presented.

The following parties entered appearances at or participated in this proceeding:

1. The Applicant, Pinellas County.

2. Florida Department of Environmental Regulation.

3. Florida Department of Community Affairs.

Having considered all testimony and evidence properly admitted, having heard arguments of Counsel, and being otherwise fully apprised herein, the following Findings of Fact, Conclusions of Law, and Recommended Order are entered:

FINDINGS OF FACT

1. A revised Application for power plant site certification was filed by Pinellas County on September 6, 1983. The Applicant proposes to expand its resource recovery facility, within the existing certified site, at which municipal solid wastes are burned to produce steam-generated electrical energy by the addition of a third boiler, additional turbine-generator, expanded cooling tower, a second stack, and related structures. The residue from the burning of these wastes is processed for recovery of metals and other valuable materials. The facility includes a large landfill which is used for disposal of those portions of the residue not amenable to recovery. Existing transmission facilities connecting the facility to Florida Power Corporation's Gandy Substation will continue to be utilized.

2. The resource recovery facility buildings are located on approximately 20 acres within Pinellas County's existing certified site. Areas of the plant site not previously disturbed by landfilling or construction activities are occupied largely either by pine flatwoods or wet weather ponds.

3. The existing resource recovery facility, certified in July 1979, consists of a 50 megawatt steam-electric generating turbine, two 1050 tons-per-day solid waste fired boilers; truck weighing scales; a refuse collection and storage pit, refuse stoking equipment; magnetic and serrofluid separators; conveyors; a four cell mechanical draft cooling tower utilizing treated sewage effluent; effluent intake and outfall piping and connections; a 161 foot flue gas stack; electro-static precipitators; stormwater retention and treatment ponds; stormwater spray irrigation fields; a sanitary landfill; and control ditching. A 230 kilovolt transmission line and associated structures runs East, South, and then East of the site for approximately 1 and 1/4 miles. The proposed expansion of electrical generation capacity is approximately 29 MW for a total capacity not exceeding 79.9 MW.

4. The primary purpose for the facility is to dispose of the county's refuse and trash. There is a clear need for recovery facilities such as that proposed by the Applicant.

The Florida Public Service Commission has found that the proposed facility expansion will increase electrical system reliability and integrity and will maintain the supply of adequate electricity at a reasonable cost while reducing dependence on fossil fuel. The Department of Environmental Regulation has found that construction of the resource recovery facility permitted the closing of current landfills and reduced the need for future landfill areas and in fact serves a recognized need.

5. Impacts from site modification are minimal in that all new additions are adjacent to existing structures on previously cleared land. No rare or endangered species have been observed on the site.

6. Since 1978, refuse generation rates in Pinellas County have risen faster than was anticipated. To meet the added demand on the processing capacity of the plant, expansion of the facility is proposed. The reduction of landfill areas is environmentally desirable and area residents, concerned about the presence of landfills near their home, should find the proposed site modification and visual barriers more attractive than landfills.

7. Extensive measures have been incorporated into the proposal and the conditions of certification so as to minimize the environmental impacts from construction and operation.

8. Due to the isolated nature of the proposed site there is very little opportunity for public access during construction and operation. In addition, traffic into the site will be limited and controlled by fencing. The applicant has proposed adequate measures to comply with both State and Federal health and safety requirements.

9. The resource recovery facility is expected to produce the following average volumes of water during normal daily operations:

1. Cooling tower blowdown 279gpm.
2. Boiler blowdown 32gpm.
3. Cooling tower evaporation and drift 1311gpm.
4. Boiler demineralization backflush water 45 gpm.
5. Sanitary wastes 50gpm.

The plant effluents will be discharged to Pinellas County's South Cross Bayou Sewage Treatment Plant. Any surface water impacts would largely arise from stormwater runoff. Perimeter ditches, a central holding pond, and associated treatment facilities are used to collect, contain, and treat runoff originating on the site. This collection and treatment system is of sufficient size to prevent any stormwater discharge from the site except during periods of extremely heavy rainfall.

Groundwater in the vicinity is Class G-II (as defined by Section 17-3.401, Florida Administrative Code). Movement of the shallow aquifer groundwater in the area is generally

Northeasterly at a rate of 1 to 10 feet per year. The area of the site is underlain by a clay/marl zone which would tend to slow the vertical migration of leachates. There has previously been an impact on the shallow aquifer groundwater quality in the vicinity of the site due to adjacent landfilling operations and saltwater intrusions. Leaching of the decomposition materials from putrescible wastes has already altered the natural state and quality of the shallow aquifer. Since landfill materials from the resource recovery facility should primarily be boiler residue and non-putrescible wastes it is likely that any groundwater impacts from these new landfill materials will be much less than from previously landfilled putrescible materials.

10. Leachates and drainage are minimized by allowing water to run off the fill rather than being allowed to percolate through the filled material. Leachate which does form by percolation through an active fill is accumulated at the low point of the active cell. This accumulation is pumped directly to the aeration pond and is contained on site. At no time will raw refuse be deposited in standing water.

Wastewater leaves the aeration lagoon and enters two water treatment ponds which have been designed to remove nutrients and heavy metals from the runoff waters. Upon leaving the ponds, wastewater is chlorinated for bacteria and virus control and pumped to the land on the Southern portion of the site.

11. Construction activities are expected to produce air pollutants from vehicular and heavy equipment exhaust emissions and fugitive dust. During operation, expected stack emissions will include particulate, sulfur dioxide, fluorides, lead, carbon monoxide, hydrocarbons, mercury, beryllium, chlorides, and oxides of nitrogen. Odor is not expected to be a problem and control measures have been included in the proposal. An electro-static precipitator has been included for the control of particulate matter. There are no sulfur dioxide emission limitations for incinerators; however, if a sufficient volume of refuse is incinerated, prevention of significant deterioration criteria may

be applicable. The Department has conducted a Best Available Control Technology analysis for the resource recovery facility and has proposed emission limitation rates for the facility.

12. During operation, refuse will be sorted for large items or non-combustibles, the remaining refuse will be incinerated. Following combustion, the residue will pass through a resource recovery system designed to extract ferrous and non-ferrous metals. The residue, approximately 2.1 percent by weight of the original raw waste, will be landfilled on site. In the event of a facility shutdown, storage facilities at the processing plant will be sufficient for storage of three to four days of incoming waste. If the plant should remain out of operation beyond three to four days, incoming raw wastes would be landfilled at the site. The facility does not intend to accept hazardous wastes.

13. During and at the conclusion of the site certification hearing, the public was given the opportunity to comment upon the application for site certification. No one not a party provided any verbal or written testimony, reports, or other evidence.

14. The Department of Environmental Regulation and the Applicant have agreed that no land use hearing was required because the proposed expansion is within the previously certified site.

15. The Applicant has accepted the proposed conditions of certification (Exhibit 1) and has agreed to comply therewith if certification is granted subject to a reservation of its right to exercise the Modification of Conditions procedure referenced in Exhibit 1 and a further reservation of its rights to object, if deemed necessary, to the application of any revised emission limitation rates contained in Exhibit 1 to its existing facilities. No objection to said reservations was entered by any party to this hearing.

16. The Florida Department of Environmental Regulation, the Public Service Commission, the Division of State Planning and Southwest Florida Water Management District, have all recommended certification of the proposed resource recovery facility subject to conditions. The stipulated conditions are attached hereto as Exhibit 1.

CONCLUSIONS OF LAW

1. This proceeding was held pursuant to the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes, and Chapter. 17-17, Florida Administrative Code, to consider the subject application for site certification.

2. Notice in accordance with Chapter 403 and Chapter 120, Florida Statutes, and Chapter 17-17, Florida Administrative Code, has been given to all persons and parties entitled thereto, as well as to the general public. The defect in the required time period for publication of the notice in the Florida Administrative Weekly is deemed inconsequential and not prejudicial and is therefore waived.

3. The purpose of the site certification hearing was to receive testimony and evidence concerning whether the location and operation of the proposed facility will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, the ecology of State waters and their aquatic life, and to fully balance the increasing demand for electrical power plant location and operation with the broad interest of the public as provided in Chapter 403, Florida Statutes.

4. The record of this hearing consists of all pleadings and papers filed herein, including the site certification application, as amended, the transcripts of all hearings, all orders entered by the Hearing Officer, as well as all evidence and exhibits properly admitted.

5. Section 403.507(1)(a), Florida Statutes, provides that the Department of Community Affairs shall present a report as to the compatibility of the proposed electrical power plant with the State comprehensive plan. The Department of Community Affairs has made a report on the resource recovery facility and its report and recommendation have been submitted and introduced into evidence. The Department recommends certification subject to the conditions in Exhibit 1.

6. Section 403.507(1)(b), Florida Statutes, requires that the Florida Public Service Commission prepare a report and recommendation as to the present and future needs for electrical generating capacity in the area to be served by the proposed facility. Such a report and recommendation have been submitted and introduced into evidence. The Public Service Commission states that there will be some benefits derived from the generating capacity addition of the resource recovery facility and resulting reduction in oil consumption. The recommendation of the Public Service Commission is that the Pinellas County Waste Resource Recovery Facility be certified subject to the conditions in Exhibit 1.

7. Section 403.507(1)(c), Florida Statutes, requires the Water Management District in whose jurisdiction the resource recovery facility will be located to prepare a report as to matters within its jurisdiction. On September 22, 1983, the Southwest Florida Water Management District stated it did not object to the proposed expansion and encouraged the continued use of reclaimed water for such industrial non-potable needs.

8. Section 403.507(2), Florida Statutes, requires that the Department of Environmental Regulation conduct or contract for studies of the proposed electrical power plant including but not limited to:

a. Cooling system requirements
b. Construction and operational safeguards
c. Proximity to transportation systems
d. Soil and foundation conditions
e. Impact on suitable present and projected water supplies for this and other competing uses
f. Impact on surrounding land uses
g. Accessibility to transmission corridors
h. Environmental Impacts.

Such a report and recommendations have been submitted and introduced into evidence. The Department of Environmental Regulation recommends certification of the proposed facility subject to the conditions of certification which are attached as Exhibit 1.

9. The Applicant has accepted the proposed conditions of certification (Exhibit 1) and has agreed to comply therewith if certification is granted subject to a reservation of its right to exercise the Modification of Conditions procedure referenced in Exhibit 1 and a further reservation of its rights to object, if deemed necessary, to the application of any revised emission limitation rates contained in Exhibit 1 to its existing facilities. No objection to said reservations was entered by any party to this hearing.

10. The location and operation of the proposed facility, as described by the evidence in the record, if made subject to the conditions of certification attached, are expected to produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. Section 403.502, Florida Statutes.

11. The operational safeguards for the proposed facility are technically sufficient for the welfare and protection of the citizens of Florida. Section 403.502(1), Florida Statutes.

12. The certification of the proposed facility is consistent with the provision of abundant low-cost electrical energy. Section 403.502(3), Florida Statutes.

13. The proposed air pollution control equipment should prevent the operation of the facility from causing significant deterioration of ambient air quality in the vicinity.

14. Construction and operation of the facility satisfy the prevention of significant deterioration criteria and the application of the Best Available Control Technology standards.

15. No land use hearing was required in this case because the proposed expansion is within the previously certified site and responsible zoning or planning authorities are precluded from changing land use plans or zoning ordinances so as to affect the site by Section 403.508(2), Florida Statutes.

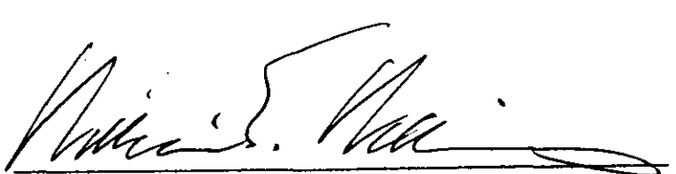
16. The parties to this certification hearing have stipulated to this Recommended Order.

RECOMMENDED ORDER

Having reviewed the record of this proceeding, and based upon the Findings of Fact and Conclusions of Law set forth herein, it is hereby recommended that certification, pursuant to Chapter 403, Part II, Florida Statutes, be granted to Pinellas County for the construction and operation of its resource recovery facility expansion and associated facilities, as proposed in the amended application and described in the record of this proceeding. It is further recommended that this certification be made subject to the conditions of certification attached hereto as Exhibit 1.

However, pursuant to the stipulation of the parties to this certification hearing, to the extent of any conflict between previously imposed Conditions of Certification and the proposed Conditions of Certification contained in Exhibit 1 herein pertaining to air quality, the revised Conditions of Exhibit 1 shall not apply to the existing facilities until the proposed expansion which is the subject of this proceeding is operational, at which time the Conditions of Certification (Exhibit 1 herein) shall apply and the previous Conditions of Certification shall be deemed rescinded.

DONE AND ORDERED this 8th day of MARCH 1984 in Tallahassee, Florida.



WILLIAM E. WILLIAMS
Hearing Officer
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301

FILED with the Division of Administrative Hearings this 8th day of March, 1984.

Copies furnished to:

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Mr. Tom Herndon
Sercretary to Florida Land
and Water Adjudicatory Commission
Office of the Governor
The Capitol
Tallahassee, Florida 32301

State of Florida Department of Environmental Regulation
Pinellas County
Resource Recovery Facility
Case No. PA 78-11 and PA 83-18
CONDITIONS OF CERTIFICATION (2/29/84)

Table of Contents

State of Florida
Pinellas County
Resource Recovery Facility
Case No. PA 78-11 and PA 83-18
CONDITIONS OF CERTIFICATION

I. CHANGE IN DISCHARGE

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant not identified in the application, or more frequent than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions, production increases, or process modifications which may result in new, different, or increased discharges or pollutants, change in fuel, or expansion in steam generating capacity must be reported by submission of a new or supplemental application pursuant to Chapter 403, Florida Statutes.

II. NON-COMPLIANCE NOTIFICATION

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specified in this certification, the permittee shall notify the Southwest Florida District Manager of the Department by telephone during the working day that said noncompliance occurs and shall confirm this in writing within seventy-two (72) hours of becoming aware of such conditions, and shall supply the following information:

A. A description of the discharge and cause of noncompliance; and

B. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying event.

III. FACILITIES OPERATION

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this certification. Such systems are not to be bypassed without prior Department approval.

IV. ADVERSE IMPACT

The permittee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

V. RIGHT OF ENTRY

The permittee shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the presentation of credentials:

A. To enter upon the permittee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit, and

B. To have access to and copy any records required to be kept under the conditions of this certification, and

C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants, and

D. To assess any damage to the environment or violation of ambient standards.

VI. REVOCATION OR SUSPENSION

This certification may be suspended or revoked pursuant to Section 403.512, Florida Statutes, or for violations of any of its conditions.

VII. CIVIL AND CRIMINAL LIABILITY

This certification does not relieve the permittee from civil or criminal penalties for noncompliance with any conditions of this certification, applicable rules or regulations of the Department or Chapter 403, Florida Statutes, or regulations thereunder.

Subject to Section 403.511, Florida Statutes, this certification shall not preclude the institution of any legal action or relieve the permittee from any responsibilities, or penalties established pursuant to any other applicable State Statutes, or regulations.

VIII. PROPERTY RIGHTS

The issuance of this certification does not convey any property rights in either real or personal property, nor any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights nor any infringement of Federal, State or local laws or regulations.

IX. SEVERABILITY

The provisions of this certification are severable, and if any provision of this certification or the application of any provision of this certification to any circumstances, is held invalid, the application of such provision to other circumstances and the remainder of the certification shall not be affected

thereby.

X. DEFINITIONS

The meaning of terms used herein shall be governed by the definitions contained in Chapter 403, Florida Statutes and any regulations adopted pursuant thereto. In the event of any dispute over the meaning of a term in these general or special conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning as determined by the Department.

XI. REVIEW OF SITE CERTIFICATION

The certification shall be final unless revised, revoked or suspended pursuant to law. At least every five years from the date of issuance of certification the Department shall review all monitoring data that has been submitted to it during the preceding five-year period for the purpose of determining the extent of the permittee's compliance with the conditions of this certification and the environmental impact of this facility. The Department shall submit the results of its review and recommendations to the permittee. Such review will be repeated at least every five years thereafter.

XII. MODIFICATION OF CONDITIONS

Pursuant to Subsection 403.516(1), F.S., the Board hereby delegates the authority to the Secretary to modify any condition of this certification dealing with sampling, monitoring, reporting, specification of control equipment, related time schedules, emission limitations subject to notice and opportunity for hearing, or any special studies conducted, as necessary to attain the objectives of Chapter 403, Florida Statutes.

All other modifications shall be made in accordance with Section 403.516, Florida Statutes.

XIII. CONSTRUCTION

The facility shall be constructed, as a minimum, pursuant to the design standards presented in the application.

A. Control Measures

1. Stormwater Runoff

To control runoff during construction which may reach and thereby pollute Waters of the State, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden stormwater to insure against spillage or discharge of excavated material that may cause turbidity in excess of 50 Jackson Turbidity Units above background in Waters of the State. Control measures may consist of sediment traps, barriers, berms, and vegetation plantings. Exposed or disturbed soil shall be protected and stabilized as soon as possible to minimize silt and sediment laden runoff. The pH shall be kept within the range of 6.0 to 8.5.

2. Burning

Open burning in connection with land clearing shall be in accordance with Chapter 17-5, FAC, and County Ordinance 76-18. No additional permits shall be required, but prior to each act of burning, the Division of Forestry shall be contacted to determine if satisfactory conditions exist for burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.

3. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the appropriate local health agency.

4. Solid Wastes

Solid wastes resulting from construction shall be disposed of in accordance with the applicable regulations of Chapter 17, FAC.

5. Noise

Construction noise shall not exceed local noise ordinance specifications, nor those noise standards imposed by zoning.

6. Dust

The County shall emply proper dust-control techniques to minimize fugitive dust emissions.

7. Transmission Lines

The directly associated transmission lines from the Resource Recovery Facility electric generators to the existing Florida Power Corporation Gandy substation shall be cleared, maintained and prepared without the use of herbicides.

B. Environmental Control Program

An environmental control program shall be established under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable conditions of certification.

If unexpected or harmful effects or evidence or irreversible environmental damage are detected during construction, the permittee shall notify the DER Southwest Florida District Office, 7601 Highway 301 North, Tampa, Florida, 33610, by telephone during the working day that the effect or damage occurs and shall confirm this in writing within seventy-two (72) hours of becoming aware of such conditions, and shall provide in writing an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects of damage.

C. Reporting

1. Starting three (3) months after certification, a quarterly construction status report shall be submitted to the Southwest Florida District Office of the Department of Environmental Regulation. The report shall be a short narrative describing the progress of construction.

2. Upon completion of construction the DER Southwest Florida District Office will be notified in order that a pre-operational inspection can be performed.

XIV. OPERATION

A. Air

The operation of the Resource Recovery Facility shall be in accordance with all applicable provisions of Chapter 17-2, 17-5, and 17-7, Florida Administrative Code. In addition to the foregoing, the permittee shall comply with the following specific conditions of certification:

1. Emission Limitations upon Operation of Unit 3

a. Stack emissions from each unit shall not exceed the following:

(1) Particulate matter: in grains per standard cubic foot dry gas corrected to 12% CO_2
Units 1 and 2 - 0.08
Unit 3 - 0.03

(2) SO_2: 83 lbs/hr of Sulfur Dioxide

(3) Nitrogen Oxides: 132 lbs/hr

(4) Carbon Monoxide: 66 lbs/hr

(5) Lead: 1.3 lbs/hr

(6) Mercury: 3200 grams/day when more than 2205 lbs/day of municipal sludge is fired. Compliance shall be determined in accordance with 40 CFR 61, Method 101, Appendix B.

(7) Odor: there shall be no objectionable odor.

(8) Visible emissions: opacity shall be no greater than 10% except that visible emissions with no more than 20% opacity may be allowed for up to three minutes in any one hour except during start up or upsets when the provisions of 17-2.250, FAC shall apply. Opacity compliance shall be demonstrated in accordance with Florida Administrative Code Rule 17-2, 700(6)(2)9;, DER Method 9.

b. The height of the boiler exhaust stackes shall not be less than 161 feet above grade.

c. The incinerator boilers shall not be loaded in excess of their rated capacity of 87,500 pounds per hour each.

d. The incinerator boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity and certification number.

e. Compliance with the limitations for particulates, sulfur oxides, nitrogen oxides, carbon monoxide and lead shall be determined in accordance with Florida Administrative Code Rule 17-2.700, DER Methods 1,2, 3, 5, 6, and 40 CFR 60, Appendix A, Method 7. The stack test shall be performed at $\pm$ 10% of the maximum steam rate of 250,000 pounds per hour.

2. Electrostatic Precipitators

For Unit 3 the electrostatic precipitator shall be designed and constructed to achieve a maximum emission rate of 0.03 grains per dscf. In the event that the ESP fails to perform as specified, or if other parameters of the facility's operation are subsequently modified, additional control will be necessitated.

For Units 1 and 2 the three-field electrostatic precipitator shall be designed and constructed to allow the installation of a fourth field in the event that the three-field ESP fails to perform as specified, or if other parameters of the facility's operation are subsequently modified, necessitating additional control.

3. Air Monitoring Program

a. The permittee shall install and operate continuously stack monitoring devices for oxygen and opacity. The monitoring devices shall meet the applicable requirements of Chapter 17-2, 710, FAC, and 40 CFR 60.45, and 40 CFR 60.13, including certification of each device.

b. The permittee shall provide sampling ports into the stack and shall provide access to the sampling ports in accordance with Section 17-2.700(4), FAC.

c. The permittee shall have a sampling test of the stack emissions performed by a commercial testing firm within 90 days of the start of operation of the boilers and annually from the date of testing thereafter.

d. The permittee shall operate two continuous SO_2 monitors and one continuous wind direction and velocity monitor in the immediate vicinity of the site. The monitors shall be specifically located as designated by the DER and shall conform to 40 CFR 53. Monitoring shall begin upon commencement of operation.

4. Reporting

a. Two copies of the results of the stack tests shall be submitted within forty-five days of testing to the DER Southwest Florida District Office.

b. Stack monitoring shall be reported to the DER Southwest District Office on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR, Part 60, Subsection 60.7.

c. SO_2 monitoring shall be reported to the DER Southwest Florida District Office on a monthly basis.

B. Fuel

The Resource Recovery Facility shall utilize refuse such as garbage and trash (as defined in Chapter 17-7, FAC) as its fuel. Use of alternate fuels would necessitate modification of these Conditions of Certification.

C. Cooling Tower

1. Makeup Water Constituency

The Resource Recovery Facility shall utilize only treated sewage effluent or stormwater runoff from the stormwater holding pond as cooling tower makeup water. The effluent shall have received prior to use in the tower, as a minimum, secondary treatment, as well as treatment described in Condition XIV.C.2. below. Use of waters other than treated sewage effluent or site stormwater, i.e., higher quality potable waters or lower quality less-than-secondarily treated sewage effluent, will require a modification of conditions agreed to by the Southwest Florida Water Management District and the Department and must be approved by the Governor and Cabinet.

2. Chlorination

Chlorine levels in the cooling tower makeup water shall continuously be monitored, prior to insertion in the cooling owers. Sewage effluent from the Northeast St. Petersburg Wastewater Treatment Plant used as makeup shall be treated if necessary to maintain a 1.0 mg/liter total chlorine residual after fifteen minutes contact time. Makeup water from the Largo Wastewater Treatment Plant shall be treated to maintain a 1.0 mg/liter free chlorine residual after fifteen minutes contact time. Chlorination should occur at an effluent turbidity of 5 Nephelometric Turbidity Units or less.

3. Special Studies

Upon satisfactory demonstration to the Department that the number of viruses entering the towers in the effluent makeup from the upgraded Largo Plant can be reduced to an undetectable level with the use of a lesser amount of chlorination, the above requirement may be altered to 1.0 mg/liter total chlorine residual after a 15 minute contact time or alternate levels as approved by the department. This demonstration may occur through performance of special studies approved by the Department. Alteration of the chlorination requirements must still insure adequate treatment for the control of bacterial growth in the cooling towers.

D. Water Discharges

1. Surface Water

a. Any discharges from the site stormwater/leachate treatment system via the emergency overflow structure which result from an event LESS than a ten-year, 24-hour storm (as defined by the U.S. Weather Bureau Technical Paper No. 40, or the DOT drainage manual, or similar documents) shall meet State Water Quality Standards, Chapter 17-3, FAC.

b. Sampling of water quality in the aeration pond, the cattail ponds, and an analysis of the tissues of the cattails utilized as part of the leachate/stormwater treatment system shall be conducted prior to pumping of leachate or stormwater through this system to verify background levels and concentrations of any metals, especially heavy metals, already present in the ponds or the vegetation. Within three months after commencement of stormwater/leachate pumping through this system, and quarterly thereafter, the pond waters and cattail tissues, as well as root detritus or other sediments on the bottom of the ponds shall again be sampled to determine the degree and effectiveness of heavy metal uptake treatment in this system, and for correlation with

groundwater monitoring data. If analyses indicate that toxic levels of materials are present in the cattail tissues, root detritus, or other pond precipitates, then these materials shall be incinerated or otherwise removed from contact with the natural environment and groundwaters. Results of analyses conducted shall be sent to the Department for review of system effectiveness.

c. Leachate, stormwater, or other site wastewaters which are to be spray irrigated shall be treated to conform to any rules promulgated by the State for the land application of wastewaters in areas not commonly accessible to the public.

d. Cooling tower blowdown shall not be discharged to surface waters.

e. Upon satisfactory demonstration to the Department that surface water quality will not be deteriorated, a special pilot operation, in the field, to determine the environmental effect of land application of process blowdown water from the Resource Recovery Facility may be allowed. This demonstration will require submittal of background and system design data, and provisions for monitoring as approved by the Department.

2. Groundwaters

a. All discharges to groundwaters, such as landfill leachate, shall be collected and treated as necessary, or otherwise be of high enough quality, to be able to meet the Water Quality Standards of Chapter 17-3.101, FAC, (Class G-II Groundwaters) at the boundary of the site.

b. If the groundwater monitoring system in the vicinity of the aeration/cattail ponds indicates that groundwater quality beyond the boundary of the site has been deteriorated by substances leaching from these ponds, then these ponds shall be lined or other Departmentally approved methods employed to reduce

further leaching sufficient to insure attainment of groundwater quality standards at the boundary of the site.

3. Groundwater Monitoring Program

a. Sampling of the shallow aquifer groundwater quality shall be conducted in at least four wells in the site vicinity. One of these wells shall be up hydrologic slope from the landfill area to provide current background data; one shall be located in the immediate vicinity of the aeration/cattail ponds; and two shall be located down hydrologic slope from the landfill/spray irrigation areas. Specific location of these wells may be proposed by the applicant, but must be approved by the Department.

b. Operational background monitoring shall commence at least one year prior to operation of the resource recovery facility. Construction of monitoring wells and the collection of samples shall be in accordance with EPA recommended methods as contained in Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities (EPA/530/SW-611). The wells shall be deep enough to insure that groundwater samples can be obtained with the groundwater table elevation at its estimated lowest point and shall be protected from damage or destruction. Samples shall be anlyzed in accordance with the methods described in Chapter 17-4, FAC. Analyses shall be performed by laboratories which are approved by the Department of Health and Rehabilitative Services to conduct analyses pursuant to Section 403.863, F.S., the State Public Water Supply Laboratory Certification Program.

c. The wells shall be monitored on a quarterly basis for the following parameters:

Conductivity	Arsenic	Selenium
Nitrates	Barium	Silver
Iron	Cadmium	Chlorides

COD	Chromium	pH
Nickel	Lead	Copper
Aluminum	Mercury	Zinc
Total Coliform Bacteria		

d. Reports shall be submitted in duplicate within 30 days of receipt of analysis results to the Department for distribution to the appropriate review personnel.

e. The monitoring program may be reviewed annually by the Department, and a determination made as to the necessity and extent of continuation of the program. Aspects of the program relation to sampling, monitoring, reporting, and related time schedules may be modified in accordance with the provisions of condition number XII.

E. Solid/Hazardous Waste

1. Operation of the associated landfill shall be done in accordance with all applicable portions of Chapter 17-7, FAC, including prohibitions, procedures for closing of the landfill, and final cover requirements, or, as provided in this condition (XIV.E.) in its entirety.

2. Putrescible wastes shall receive daily cover. No cover shall be required for the landfilling of only ash or construction/demolition debris. Daily cover shall consist of a six inch layer of compacted earth or other material approved by the DER placed at the end of each working day.

3. Rodent and insect control shall be provided as necessary to protect the health and safety of site employees and the public. Pesticides used to control rodents, flies, and other vectors shall be as specified by the Florida Department of Agriculture and Consumer Services.

4. A monthly report shall be prepared detailing the amount and type (putrescible, special wastes, boiler residue, etc.) of materials landfilled at the site, and the treatment provided (see condition XIV.E.2. above). These reports shall be furnished to the DER Southwest District Office quarterly, commencing 120 days after the Resource Recovery Facility becomes operational and is producing residues.

5. Unless approved by the Department with subsequent modification of conditions, this facility shall not accept materials currently defined as "Hazardous Wastes", i.e., pesticides, volatile or radioactive material, etc.

6. No putrescible wastes shall be placed below the maximum groundwater level unless permanent leachate controls are installed. Methodology for permanent leachate controls shall be submitted to the Department for review. Such methodology shall not be implemented until approved by the Department. In the absence of permanent leachate controls, demolition debris and other non-putrescible items (other than boiler residue) shall be utilized to separate the putrescible waste from the groundwater. Boiler residue may be placed below the maximum groundwater level without permanent leachate controls provided that the permittee demonstrates that the residue will not contribute to a violation of water quality criteria at the boundary of a zone of discharge extending to the site boundary. Fly ash which has been segregated or separated from bottom ash shall not be placed below the maximum groundwater level without permanent leachate controls.

7. Separate cells and lifts shall be maintained for landfilling putrescible wastes.

8. All cells will be constructed to promote leachate drainage to a low end of the cell; all leachate formed at the low end of an active cell shall be pumped to the aeration pond for treatment.

9. A chemical analysis of the boiler residue shall be conducted within 30 days after commencement of operation, testing at the minimum for levels of Cadmium, Chromium, Zinc and Lead to determine the nature and potential toxicity or hazardousness of the materials created in the combustion process.

10. Results from the residue analysis shall immediately be sent to the Department and will be used to determine whether or not these materials constitute a "Hazardous Waste" as defined by Chapter 17-30, FAC; results of these analyses may also be used for correlation with groundwater monitoring information and in any subsequent modification of conditions.

11. If residue material are determined to be a "Hazardous Waste", then measures shall be taken to treat or dispose of the residues pursuant to rules promulgated by either Federal or State authorities.

12. If the nature of materials received at the facility becomes altered, either due to modification of conditions, i.e, the facility is allowed to incinerate already known hazardous wastes such as pesticides, or if groundwater monitoring reveals unusual groundwater conditions which may be attributable to the landfilling of this residue, then a subsequent analysis may be required at that time.

13. There shall be no discharge to the environment of polychlorinated biphenyl compounds.

F. Operational Safeguards

The overall design and layout of the facilities shall be such as to minimize hazards to humans and the environmenta. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions. The Federal Occupational

Safety and Health Standards will be complied with during construction and operation. The safety standards specified under Section 440.56, Florida Statutes, by the Industrial Safety Section of the Florida Department of Commerce will be complied with during operation.

G. Transmission Lines

The directly associated transmission lines from the Resource Recovery Facility electric generators to the Florida Power Corporation Gandy Substation shall be kept cleared without the use of herbicides.

H. Noise

Operational noises shall not exceed local noise ordinance limitations nor those noise standards imposed by zoning.

XV. STATUS OF EXISTING PERMITS

No permit may be issued for sanitary waste landfilling other than this Certification, for the area known as Bridgeway Acres II.

BOARD OF COUNTY COMMISSIONERS
PINELLAS COUNTY, FLORIDA
315 COURT STREET
CLEARWATER, FLORIDA 33516

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BARBARA SHEEN TODD

W. GRAY DUNLAP
COUNTY ATTORNEY

March 2, 1984

Karen A. Lloyd, Esq.
Southwest Florida Water
Management District
2379 Broad Street
Brooksville, Florida 33512-9712

Re: Pinellas County Application for Power Plan
Site Certification

Dear Ms. Lloyd:

Enclosed please find the original stipulation and recommended order in this proceeding. Please execute same and forward to the attention of Julie Cobb (Department of Environmental Regulation) as soon as possible. It would be appreciated if you could mail this to DER no later than Monday afternoon.

Thank you for your assistance in this regard.

Very truly yours,

Van B. Cook

Van B. Cook
Chief Assistant County Attorney

VBC:dtr
Enc.

cc: Julie Cobb, Esq.
C. Laurence Keesey, Esq.
Hamilton S. Oven, Jr., P.E.
Bonnie Davis, Esq.

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: Pinellas County Resource Project; Application for Power Plant Site Certification

Case No. 83-2355

STIPULATION TO RECOMMENDED ORDER

The undersigned counsel to the parties to this proceeding hereby stipulate to the entry of the attached Recommended Order regarding site certification.

Van B. Cook

VAN B. COOK
Chief Assistant County Attorney
315 Court Street
Clearwater, Florida 33516
For the Applicant, Pinellas County

JULIE COBB
2600 Blair Stone Road
Tallahassee, Florida 32301
Assistant General Counsel for
Department of Environmental
Regulation

KAREN A. LLOYD, Esq.
2379 Broad Street
Brooksville, Florida 33512-9712
For SFWMD

C. LAURENCE KEESEY, Esq.
2571 Executive Center Circle East
Tallahassee, Florida 32301
For Department of Community Affairs

1566p/0033p

BOARD OF COUNTY COMMISSIONERS
PINELLAS COUNTY, FLORIDA
315 COURT STREET
CLEARWATER, FLORIDA 33516

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CHARLES E. RAINEY
BARBARA SHEEN TODD

W. GRAY DUNLAP
COUNTY ATTORNEY

March 1, 1984

John Bottcher, Esq.
Department of Environmental
Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

Re: Recommended Order regarding Site Certification

Dear Mr. Bottcher:

Enclosed please find the recommended Order regarding site certification which I believe reflects the agreement reached between your office, Mr. Oven, and Pinellas County, prior to and at the hearing conducted on February 29, 1984.

Assuming you have no objection to same, I would request that you provide the hearing officer with the original and copies for distribution to the parties. Please be sure to attach the revised Conditions of Certification as Exhibit 1. However, please do not release this Order until I have had an opportunity to review and approve the revised conditions of certification.

The hearing officer indicated he would be able to sign this Order early Monday morning. Furthermore, Mr. Keesey indicates that his express approval is not required if the Order meets with your approval.

I have referenced that this is, in fact, a stipulated recommended order in paragraph 16 of the Conclusions of Law.

Thank you for your cooperation and that of the Department of Environmental Regulation throughout these proceedings.

Very truly yours,

Van B. Cook

Van B. Cook
Chief Assistant County Attorney

VBC:dtr
Enc.
cc: C. Laurence Keesey, Esq.
Hamilton S. Oven, Jr., P.E.
Bonnie Davis, Esq.
Karen A. Lloyd, Esq.

1735q/0033p

STATE OF FLORIDA

DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: Pinellas County Resource Project; Application for Power Plant Site Certification

Case No. 83-2355

RECOMMENDED ORDER
REGARDING SITE CERTIFICATION

Pursuant to notice, the Division of Administrative Hearings, by its duly designated Hearing. Officer, William E. Williams, held a public hearing in this cause on February 29, 1984, in Clearwater, Florida.

APPEARANCES

For the Applicant:	Van B. Cook Chief Assistant County Attorney 315 Court Street Clearwater, Florida 33516
For the Department of Environmental Regulation:	Julie Cobb Assistant General Counsel 2600 Blair Stone Road Tallahassee, Florida 32301
For the Department of Community Affairs:	C. Laurence Keesey, Esq. 2571 Executive Center Circle East Tallahassee, Florida 32301
For Southwest Florida Water Management District:	None
For Public Service Commission	None

On or about September 6, 1984, the Applicant, Pinellas County, filed an amended application for power plant site certification to expand its existing resource recovery facility with the Department of Environmental Regulation. The Division of Administrative Hearings received a request from the Department of Environmental Regulation for the appointment of a Hearing Officer to conduct the hearings required by Chapter 403, Part II, Florida Statutes. On September 19, 1984, the Division of Administrative Hearings received a statement from the Department of Environmental Regulation declaring the application to be complete as of September 6, 1984.

On January 19, 1984, the Applicant filed a Motion to Expedite the certification hearing required by Chapter 403, Part II, Florida Statutes. On January 25, 1984, the undersigned entered an Order scheduling a certification hearing for February 29, 1984 and requiring a pre-hearing stipulation, and issued a Notice of Hearing. A pre-hearing stipulation was filed on or about February 24, 1984.

A certification hearing as required by Section 403.508(3), Florida Statutes, was held pursuant to proper notice in Clearwater, Florida. The notice published in the Florida Administrative Weekly was four days less than the required 30 day notice. Upon motion of the Applicant, and no other party entering an objection, this defect was waived. The purpose of that hearing was to receive testimony and evidence concerning whether the location and operation of the proposed facility would produce adverse effects on human health, environment, the ecology of the land and its wildlife, and the ecology of State waters and their aquatic life;
would assure the citizens of Florida that operational safeguards are technically sufficient for their welfare and protection; and would effect a reasonable balance between the need for the facility and the environmental impact resulting from construction and operation of the facility; as well as providing abundant, low-cost electrical energy. The hearing included an examination of the following:

The necessity for expanded electrical generation;

The expected environmental impact from construction and operation of the resource recovery facility;

Operational safeguards of the facility;

The availability of abundant, low-cost electrical energy;

Other public interests and issues relevant to certification of the proposed site.

In addition, evidence relating to best available control technology and the prevention of significant deterioration of ambient air quality was presented.

The following parties entered appearances at or participated in this proceeding:

1. The Applicant, Pinellas County.

2. Florida Department of Environmental Regulation.

3. Florida Department of Community Affairs.

Having considered all testimony and evidence properly admitted, having heard arguments of Counsel, and being otherwise fully apprised herein, the following Findings of Fact, Conclusions of Law, and Recommended Order are entered:

FINDINGS OF FACT

1. A revised Application for power plant site certification was filed by Pinellas County on September 6, 1984. The Applicant proposes to expand its resource recovery facility, within the existing certified site, at which municipal solid wastes are burned to produce steam-generated electrical energy by the addition of a third boiler, additional turbine-generator, expanded cooling tower, a second stack, and related structures. The residue from the burning of these wastes is processed for recovery of metals and other valuable materials. The facility includes a large landfill which is used for disposal of those portions of the residue not amenable to recovery. Existing transmission facilities connecting the facility to Florida Power Corporation's Gandy Substation will continue to be utilized.

2. The resource recovery facility buildings are located on approximately 20 acres within Pinellas County's existing certified site. Areas of the plant site not previously disturbed by landfilling or construction activities are occupied largely either by pine flatwoods or wet weather ponds.

3. The existing resource recovery facility, certified in July 1979, consists of a 50 megawatt steam-electric generating turbine, two 1050 tons-per-day solid waste fired boilers; truck weighing scales; a refuse collection and sewage pit, refuse stoking equipment; magnetic and serrofluid separators; conveyors; a four cell mechanical draft cooling tower utilizing treated sewage effluent; effluent intake and outfall piping and connections; a 161 foot flue gas stack; electro-static precipitators; stormwater retention and treatment ponds; stormwater spray irrigation fields; a sanitary landfill; and control ditching. A 230 kilovolt transmission line and associated structures runs East, South, and then East of the site for approximately 1 and 1/4 miles. The proposed expansion of electrical generation capacity is approximately 29 MW for a total capacity not exceeding 79.9 MW.

4. The primary purpose for the facility is to dispose of the county's refuse and trash. There is a clear need for recovery facilities such as that proposed by the Applicant.

The Florida Public Service Commission has found that the proposed facility expansion will increase electrical system reliability and integrity and will maintain the supply of adequate electricity at a reasonable cost while reducing dependence on fossil fuel. The Department of Environmental Regulation has found that construction of the resource recovery facility permitted the closing of current landfills and reduced the need for future landfill areas and in fact serves a recognized need.

5. Impacts from site modification are minimal in that all new additions are adjacent to existing structures on previously cleared land. No rare or endangered species have been observed on the site.

6. Since 1978, refuse generation rates in Pinellas County have risen faster than was anticipated. To meet the added demand on the processing capacity of the plant, expansion of the facility is proposed. The reduction of landfill areas is environmentally desirable and area residents, concerned about the presence of landfills near their home, should find the proposed site modification and visual barriers more attractive than landfills.

7. Extensive measures have been incorporated into the proposal and the conditions of certification so as to minimize the environmental impacts from construction and operation.

8. Due to the isolated nature of the proposed site there is very little opportunity for public access during construction and operation. In addition, traffic into the site will be limited and controlled by fencing. The applicant has proposed adequate measures to comply with both State and Federal health and safety requirements.

9. The resource recovery facility is expected to produce the following average volumes of water during normal daily operations:

1. Cooling tower blowdown 279gpm.
2. Boiler blowdown 32gpm.
3. Cooling tower evaporation and drift 1311gpm.
4. Boiler demineralization backflush water 45 gpm.
5. Sanitary wastes 50gpm.

The plant effluents will be discharged to Pinellas County's South Cross Bayou Sewage Treatment Plant. Any surface water impacts would largely arise from stormwater runoff. Perimeter ditches, a central holding pond, and associated treatment facilities are used to collect, contain, and treat runoff originating on the site. This collection and treatment system is of sufficient size to prevent any stormwater discharge from the site except during periods of extremely heavy rainfall.

Groundwater in the vicinity is Class G-II (as defined by Section 17-3.401, Florida Administrative Code). Movement of the shallow aquifer groundwater in the area is generally

Northeasterly at a rate of 1 to 10 feet per year. The area of the site is underlain by a clay/marl zone which would tend to slow the vertical migration of leachates. There has previously been an impact on the shallow aquifer groundwater quality in the vicinity of the site due to adjacent landfilling operations and saltwater intrustions. Leaching of the decomposition materials from putrescible wastes has already altered the natural state and quality of the shallow aquifer. Since landfill materials from the resource recovery facility should primarily be boiler residue and non-putrescible wastes it is likely that any groundwater impacts from these new landfill materials will be much less than from previously landfilled putrescible materials.

10. Leachates and drainage are minimized by allowing water to run off the fill rather than being allowed to percolate through the filled material. Leachate which does form by percolation through an active fill is accumulated at the low point of the active cell. This accumulation is pumped directly to the aeration pond and is contained on site. At no time will raw refuse be deposited in standing water.

Wastewater leaves the aeration lagoon and enters two water treatment ponds which have been designed to remove nutrients and heavy metals from the runoff waters. Upon leaving the ponds, wastewater is chlorinated for bacteria and virus control and pumped to the land on the Southern portion of the site.

11. Construction activities are expected to produce air pollutants from vehicular and heavy equipment exhaust emissions and fugitive dust. During operation, expected stack emissions will include particulate, sulfur dioxide, florides, lead, carbon monoxide, hydrocarbons, mercury, beryllium, chlorides, and oxides of nitrogen. Odor is not expected to be a problem and control measures have been included in the proposal. An electro-static precipitator has been included for the control of particulate matter. There are no sulfur dioxide emission limitations for incinerators; however, if a sufficient volume of refuse is incinerated, prevention of significant deterioration criteria may

be applicable. The Department has conducted a Best Available Control Technology analysis for the resource recovery facility and has proposed emission limitation rates for the facility.

12. During operation, refuse will be sorted for large items or non-combustibles, the remaining refuse will be incinerated. Following combustion, the residue will pass through a resource recovery system designed to extract ferrous and non-ferrous metals. The residue, approximately 2.1 percent by weight of the original raw waste, will be landfilled on site. In the event of a facility shutdown, storage facilities at the processing plant will be sufficient for storage of three to four days of incoming waste. If the plant should remain out of operation beyond three to four days, incoming raw wastes would be landfilled at the site. The facility does not intend to accept hazardous wastes.

13. During and at the conclusion of the site certification hearing, the public was given the opportunity to comment upon the application for site certification. No one not a party provided any verbal or written testimony, reports, or other evidence.

14. The Department of Environmental Regulation and the Applicant have agreed that no land use hearing was required because the proposed expansion is within the previously certified site.

15. The Applicant has accepted the proposed conditions of certification (Exhibit 1) and has agreed to comply therewith if certification is granted subject to a reservation of its right to exercise the Modification of Conditions procedure referenced in Exhibit 1 and a further reservation of its rights to object, if deemed necessary, to the application of any revised emission limitation rates contained in Exhibit 1 to its existing facilities. No objection to said reservations was entered by any party to this hearing.

16. The Florida Department of Environmental Regulation, the Public Service Commission, the Division of State Planning and Southwest Florida Water Management District, have all recommended certification of the proposed resource recovery facility subject to conditions. The stipulated conditions are attached hereto as Exhibit 1.

CONCLUSIONS OF LAW

1. This proceeding was held pursuant to the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes, and Chapter. 17-17, Florida Administrative Code, to consider the subject application for site certification.

2. Notice in accordance with Chapter 403 and Chapter 120, Florida Statutes, and Chapter 17-17, Florida Administrative Code, has been given to all persons and parties entitled thereto, as well as to the general public. The defect in the required time period for publication of the notice in the Florida Administrative Weekly is deemed inconsequential and not prejudicial and is therefore waived.

3. The purpose of the site certification hearing was to receive testimony and evidence concerning whether the location and operation of the proposed facility will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, the ecology of State waters and their aquatic life, and to fully balance the increasing demand for electrical power plant location and operation with the broad interest of the public as provided in Chapter 403, Florida Statutes.

4. The record of this hearing consists of all pleadings and papers filed herein, including the site certification application, as amended, the transcripts of all hearings, all orders entered by the Hearing Officer, as well as all evidence and exhibits properly admitted.

5. Section 403.507(1)(a), Florida Statutes, provides that the Department of Community Affairs shall present a report as to the compatibility of the proposed electrical power plant with the State comprehensive plan. The Department of Community Affairs has made a report on the resource recovery facility and its report and recommendation have been submitted and introduced into evidence. The Department recommends certification subject to the conditions in Exhibit 1.

6. Section 403.507(1)(b), Florida Statutes, requires that the Florida Public Service Commission prepare a report and recommendation as to the present and future needs for electrical generating capacity in the area to be served by the proposed facility. Such a report and recommendation have been submitted and introduced into evidence. The Public Service Commission states that there will be some benefits derived from the generating capacity addition of the resource recovery facility and resulting reduction in oil consumption. The recommendation of the Public Service Commission is that the Pinellas County Waste Resource Recovery Facility be certified subject to the conditions in Exhibit 1.

7. Section 403.507(1)(c), Florida Statutes, requires the Water Management District in whose jurisdiction the resource recovery facility will be located to prepare a report as to matters within its jurisdiction. On September 22, 1983, the Southwest Florida Water Management District stated it did not object to the proposed expansion and encouraged the continued use of reclaimed water for such industrial non-potable needs.

8. Section 403.507(2), Florida Statutes, requires that the Department of Environmental Regulation conduct or contract for studies of the proposed electrical power plant including but not limited to:

a. Cooling system requirements
b. Construction and operational safeguards
c. Proximity to transportation systems
d. Soil and foundation conditions
e. Impact on suitable present and projected water supplies for this and other competing uses
f. Impact on surrounding land uses
g. Accessibility to transmission corridors
h. Environmental Impacts.

Such a report and recommendations have been submitted and introduced into evidence. The Department of Environmental Regulation recommends certification of the proposed facility subject to the conditions of certification which are attached as Exhibit 1.

9. The Applicant has accepted the proposed conditions of certification (Exhibit 1) and has agreed to comply therewith if certification is granted subject to a reservation of its right to exercise the Modification of Conditions procedure referenced in Exhibit 1 and a further reservation of its rights to object, if deemed necessary, to the application of any revised emission limitation rates contained in Exhibit 1 to its existing facilities. No objection to said reservations was entered by any party to this hearing.

10. The location and operation of the proposed facility, as described by the evidence in the record, if made subject to the conditions of certification attached, are expected to produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. Section 403.502, Florida Statutes.

11. The operational safeguards for the proposed facility are technically sufficient for the welfare and protection of the citizens of Florida. Section 403.502(1), Florida Statutes.

12. The certification of the proposed facility is consistent with the provision of abundant low-cost electrical energy. Section 403.502(3), Florida Statutes.

13. The proposed air pollution control equipment should prevent the operation of the facility from causing significant deterioration of ambient air quality in the vicinity.

14. Construction and operation of the facility satisfy the prevention of significant deterioration criteria and the application of the Best Available Control Technology standards.

15. No land use hearing was required in this case because the proposed expansion is within the previously certified site and responsible zoning or planning authorities are precluded from changing land use plans or zoning ordinances so as to affect the site by Section 403.508(2), Florida Statutes.

16. The parties to this certification hearing have stipulated to this Recommended Order.

RECOMMENDED ORDER

Having reviewed the record of this proceeding, and based upon the Findings of Fact and Conclusions of Law set forth herein, it is hereby recommended that certification, pursuant to Chapter 403, Part II, Florida Statutes, be granted to Pinellas County for the construction and operation of its resource recovery facility expansion and associated facilities, as proposed in the amended application and described in the record of this proceeding. It is further recommended that this certification be made subject to the conditions of certification attached hereto as Exhibit 1.

However, pursuant to the stipulation of the parties to this certification hearing, to the extent of any conflict between previously imposed Conditions of Certification and the proposed Conditions of Certification contained in Exhibit 1 herein pertaining to air quality, the revised Conditions of Exhibit 1 shall not apply to the existing facilities until the proposed expansion which is the subject of this proceeding is operational, at which time the Conditions of Certification (Exhibit 1 herein) shall apply and the previous Conditions of Certification shall be deemed rescinded.

DONE AND ORDERED this day of 1984 in Tallahassee, Florida.

WILLIAM E. WILLIAMS
Hearing Officer
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301

Copies furnished to:

Van B. Cook
Chief Assistant Pinellas County Attorney
315 Court Street
Clearwater, Florida 33516

Julie Cobb, Esq.
Assistant General Counsel
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

C. Laurence Keesey, Esq.
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, Florida 32301

Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting, DER
2600 Blair Stone Road
Tallahassee, Florida 32301

Bonnie Davis, Esq.
Public Service Commission
Fletcher Building
101 E. Gaines Street
Tallahassee, Florida 32301-8153

Karen A. Lloyd, Esq.
Southwest Florida Water Management District
2379 Broad Street
Brooksville, Florida 33512-9712

1553p/0033p

February 28, 1984

Mr. William E. Williams
Division of Administrative Hearings
2009 Apalachee Parkway
Tallahassee, Florida 32301

RE: Pinellas County Resource Recovery Project
PA 83-18, DOAH Case No. 83-2355

Dear Mr. Williams:

Attached please find an amendment to the power plant siting application for the second phase of the Pinellas County Resource Recovery project. The Department has not reviewed this proposed amendment sufficiently to determine if it is complete, sufficient or if it provides reasonable assurance that air quality standards will not be violated.

Sincerely,

Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting Section

HSOjr/sb

cc: All Parties

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing has been furnished by U.S. Mail this 28th day of February, 1984 to the following named persons:

JOHN BOTTCHER, ESQUIRE
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

VAN B. COOK, ESQUIRE
Chief Assistant County Attorney
315 Court Street
Clearwater, FL 33516

LARRY KEESEY, ESQUIRE
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, FL 32301

STEPHEN A. WALKER, ESQUIRE
Southwest Florida Water
Management District
2379 Broad Street
Brooksville, FL 33512-9712

HAMILTON S. OVEN, JR., P.E.
Administrator
Power Plant Siting Section
Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

BOARD OF COUNTY COMMISSIONERS

DEPARTMENT OF SOLID WASTE MANAGEMENT
2800 110TH AVENUE NORTH
ST. PETERSBURG, FLORIDA 33702
PHONE (813) 825-1565

February 27, 1984

Mr. Hamilton S. Oven, Jr., P.E.
Administrator, Power Plant Siting Section
State of Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

Re: Air Emission

Dear Mr. Oven:

Enclosed herewith are proposed emission factors to be set in the Conditions of Certification for Unit No.3, as "not to exceed" values for the stipulated averaging periods. As you will note, the averaging periods stated are either of three (3) or twelve (12) month longevity. The County also proposes to implement immediately a Department-approved monitoring program at existing Units No. 1 and No. 2 to identify realistic short term emission rates. After a test period of duration and frequency to be stipulated by the Department, but prior to start-up of Unit No. 3, short term emission limitations (based on actual test results), can be imposed.

No.	Parameter	Proposed Emission Limitations (Unit 3)	Averaging Times
1	SO_2	3 lbs SO_2 per ton refuse fired	12 mos.
2	NO_x (as NO_2)	3.5 lbs. NO_x per ton refuse fired	12 mos.
3	CO	1.5 lbs. CO per ton refuse fired	12 mos.
4.	Lead	0.1 lbs. lead per ton refuse fired	3 mos.

Computer modeling results utilizing these emission factors are also submitted under this letter for Department review. These results indicate that neither ambient air quality or PSD increment consumption are significantly effected by plant operations.

It is requested that the Department make provisions in the Conditions of Certification (para. XII, Modifications of Conditions), to include the authority for the Secretary to modify Air Emission Limitations upon completion of the approved monitoring program as described above.

Sincerely,

D. F. Acenbrack, Director
Solid Waste Management

ACE:ltl
Enclosure
Modelling Data
cc: Dan Williams, Tpa DER Office
Gene E. Jordan, Dir, PW&U
W. Gray Dunlap, County Attorney
W. W. Dasher, Dir, PW Opns

HDR

PROJECTS

SUBJECT

COMPUTED CHECKED DATE PAGE OF

27 FEB. 1984

REVISED PPSC APPENDIX II

TABLES:

II-1
II-2
II-3
II-5
II-6
II-7
II-8
II-9
II-10

ENCLOSED - TWO (2) SETS OF REVISED TABLES

Major Changes in
Modeling from Previous Submissions

1. The emissions for the one area source modeled has been switched from SO_2 to TSP. This has brought some of the cumulative SO_2 impacts down somewhat.

2. The TSP emissions for Unit 3 are assumed to be 0.03 GR/DSCF as opposed to 0.08 GR/DSCF for Units 1 and 2. Lead emissions are assumed to be proportional to TSP emissions for each unit.

3. The two stacks are now assumed to be split rather than at the same location. Unit 3 stack is 135 feet north of Units 1 and 2 stack.

4. Building dimensions changed to: 104 ft. in height, 332 ft. in length, and 80 ft. in width.

5. Hot spot analysis was done only for the PSD sources, all three units, and Unit 3. Hotspots were analyzed only for the 3 and 24 hr. SO_2 standards and the 1 and 8 hr. co standards. The analysis was done within 500 meters of the facility with a grid increment of 500 meters.

6. We reran the hot spot analyses without the wake effect to determine if wake effects were causing high concentrations to the west of the facility. We prepared a second set of impact tables for both the average and maximum emissions that use the hot spot runs without wake effects for those receptors to the west where wake effects cannot occur.

ANNUAL AVERAGE EMISSIONS WITH WAKE EFFECTS

II. AIR QUALITY ANALYSIS

A. INTRODUCTION

Available data indicate that emission levels as listed in Table II-1 are attainable by mass burn resource recovery facilities. These emission levels at a throughput of 1,050 TPD will be used in the modeling required for the PSD permit.

TABLE II-1
EXPECTED EMISSIONS (ANNUAL AVERAGE)

Pollutant	lb of Pollutant per ton of MSW	lb of Pollutant per hour
Particulate	0.5	22.0
Sulfur Dioxide	3.0	131.0
Nitrogen Dioxide	3.5	153.2
Carbon Monoxide	1.5	65.6
Hydrocarbons	0.3	13.1
Lead	0.1	4.3
Mercury	0.01	0.44
Beryllium	1.3×10^{-6}	5.7×10^{-5}
Fluorides	0.1	4.4
Chlorides	4.0	175

Table II-1 is expanded in Table II-2 to indicate the equivalent emission factors used in the various parts of the Air Quality Analysis. The Resource Recovery Facility (RRF) is a PSD significant source for all criteria and several non-criteria pollutants. Table II-3 lists the stack parameters used in the analysis of this unit.

TABLE II-2
3rd UNIT
ANNUAL RRF EMISSIONS AND STACK PARAMETERS

Pollutant	lb per ton MSW	Equivalent Factors lb/hr	TPY	gm/s
Particulate	0.5	22	96	2.8
Sulfur Dioxide	3.0	132	577	16.6
Nitrogen Dioxide	3.5	153	673	19.4
Carbon Monoxide	1.5	66	288	8.3
Hydrocarbons	0.3	13.1	58	1.68
Lead	0.1	4.4	38	0.55
Mercury	0.01	0.5	2.1	0.06
Beryllium	1.3×10^{-6}	5.7×10^{-5}	2.5×10^{-4}	7.2×10^{-6}
Fluorides	0.1	4.4	38	0.55
Chlorides	4.0	174	764	22

TABLE II-3
STACK PARAMETERS

Parameters	Unit 3 Metric	English
Volumetric Flow	118.0 m^3/s	251,000 acfm
Stack Diameter	2.37 m	7.8 ft
Stack Height	49.1 m	161 ft
Exit Velocity	26.8 m/s	88 ft/s
Exit Temperature	505°K	450°F

TABLE II-5
IMPACT OF THE PROPOSED PROJECT

Pollutant	Averaging Time	Peak Modeled Concentration (ug/m^3)	Location[a]
SO_2	3-hour	26.2	(100m, 0m)
	24-hour	12.6	(-100m, 0m)
	Annual	0.48	(1500m, 90°)
TSP	24-hour	2.1	(-100m, 0)
	Annual	0.08	(1500m, 90°)
NO_2	Annual	0.56	(1500m, 90°)
Lead	24-hour	0.42	(-100m, 0m)
	Quarterly	0.04	(500m, 90°)
Mercury	24-hour	0.042	(-100m, 0m)
Beryllium	24-hour	5.5×10^{-6}	(-100m, 0m)
Fluoride	24-hour	0.42	(-100m, 0m)
CO	1-hour	21.5	(300m, -100m)
	8-hour	8.1	(-100m, 0m)

T7018/8-24-83

[a]The locations of peak concentration are expressed with respect to the location of Units 1 and 2 (0,0). The 3-hour and 24-hour maximum locations are based on a Cartesian coordinate system while the others are based on a polar coordinate system.

TABLE II-6
IMPACT OF THE ALL 3 UNITS OF RESOURCE RECOVERY PROJECT

Pollutant	Averaging Time	Peak Modeled Concentration (ug/m^3)	Location[a]
SO_2	3-hour	86.7	(300m,-100m)
	24-hour	47.3	(-300m,-100m)
	Annual	1.44	(1500m,90°)
TSP	24-hour	7.3	(500m,247.5°)
	Annual	0.51	(1500m,90°)
NO_2	Annual	1.68	(1500m,90°)
Lead	24-hour	1.46	(500m,247.5°)
	Quarterly	0.24	(500m,90°)
Mercury	24-hour	0.16	(-300,-100m)
Beryllium	24-hour	2.0×10^{-5}	(-300m,-100m)
Fluoride	24-hour	1.6	(-300m,-100m)
CO	1-hour	54.2	(300m,-100m)
	8-hour	26.9	(-300m,-100m)

T7019/8-24-83

The locations of peak concentration are expressed with respect to the location of Units 1 and 2 (0,0).

TABLE II-7
CUMULATIVE IMPACTS OF THE PROJECT
AND OTHER MAJOR SOURCES OF SO_2 AND TSP

Pollutant	Averaging Time	Background Concentration (ug/m^3)	Peak Modeled Concentration (ug/m^3)	Cumulative Concentration (ug/m^3)	Location [a]
SO_2	3-hour	476	269	745	(3000 m, 90°)
	24-hour	104	96	200	(3000 m, 315°)
	Annual	8.8	13.7	22.5	(8000 m, 67.5°)
TSP	24-hour	89	46.8	135.8	(1000 m, 247.5°)
	Annual	44.6	4.1	48.7	(2000 m, 270°)

T7017/8-24-83

[a]The locations of peak concentration are expressed with respect to the location of Units 1 and 2 (0,0) and are expressed in terms of a distance and direction.

TABLE II-8
CUMULATIVE IMPACTS OF THE PROJECT
AND OTHER PSD SOURCES

Pollutant	Averaging Time	Peak Modeled Concentration (ug/m^3)	PSD Class II Increment (ug/m^3)	Location[a] (Distance, direction
SO_2	3-hour	253	512	(9000 m, 67.5°)
	24-hour	81	91	(8000 m, 157.5°)
	Annual	4.9	20	(8000 m, 67.5°)
TSP	24-hour	7.5	37	(500 m, 247.5°)
	Annual	0.58	19	(1500 m, 90°)

T7016/8-24-83

[a]The locations of peak concentration are expressed with respect to the location of Units 1 and 2 (0,0).

TABLE II-9
IMPACT OF THE PROJECT ON SO_2 AND TSP
NONATTAINMENT AREAS IN THE VICINITY OF THE PROJECT

Location of Nonattainment Areas	Nonattainment Pollutant	Averaging Time	Modeled Impact of Project
Tarpon Springs	SO_2	3-hour	3.4
		24-hour	0.5
		Annual	0.03
Tampa	TSP	24-hour	0.11
		Annual	0.006

T7015/8-24-83

TABLE II-10
DE MINIMIS IMPACTS AS COMPARED WITH
MODELED IMPACTS FOR THE PROJECT

Pollutant	De Minimus Level (ug/m^3)	Average Time	Modeled Concentration (ug/m^3)
Carbon Monoxide	575	8-hour	8.1
Nitrogen Dioxide	14	Annual	0.56
Particulate	10	24-hour	2.1
Sulfur Dioxide	13	24-hour	12.2
Lead	0.1	24-hour	0.42
Mercury	0.25	24-hour	0.042
Beryllium	5.0×10^{-4}	24-hour	5.5×10^{-6}
Fluoride	0.25	24-hour	0.42

T7014/8-24-83

BOARD OF COUNTY COMMISSIONERS

DEPARTMENT OF SOLID WASTE MANAGEMENT
2800 110TH AVENUE NORTH
ST. PETERSBURG, FLORIDA 33702
PHONE (813) 825-1565

COMMISSIONERS

JOHN CHESNUT, JR., CHAIRMAN
BRUCE TYNDALL, VICE-CHAIRMAN
GABRIEL CAZARES
CHARLES E. RAINEY
BARBARA SHEEN TODD

February 27, 1984

(1) Mr. Hamilton S. Oven, Jr., P.E.
Administrator, Power Plant Siting Section
State of Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241 5th Floor

(2) Karen Anthony

(3) Tom Rogers
Bureau Air Quality Mgmt.

Re: Air Emission

Dear Mr. Oven:

Enclosed herewith are proposed emission factors to be set in the Conditions of Certification for Unit No.3, as "not to exceed" values for the stipulated averaging periods. As you will note, the averaging periods stated are either of three (3) or twelve (12) month longevity. The County also proposes to implement immediately a Department-approved monitoring program at existing Units No. 1 and No. 2 to identify realistic short term emission rates. After a test period of duration and frequency to be stipulated by the Department, but prior to start-up of Unit No. 3, short term emission limitations (based on actual test results), can be imposed.

No.	Parameter	Proposed Emission Limitations (Unit 3)	Averaging Times
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2	NO_x (as NO_2)	3.5 lbs. NO_x per ton refuse fired	12 mos.
3	CO	1.5 lbs. CO per ton refuse fired	12 mos.
4.	Lead	0.1 lbs. lead per ton refuse fired	3 mos.

Phone # 462-3126

BOARD OF COUNTY COMMISSIONERS
PINELLAS COUNTY, FLORIDA
315 COURT STREET
CLEARWATER, FLORIDA 33516

W. GRAY DUNLAP
COUNTY ATTORNEY

February 24, 1984

Mr. William E. Williams
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301

Re: Pinellas County Resource Recovery Project
PA 83-18, DOAH Case No. 83-2355

Dear Mr. Williams:

Enclosed please find the original and one copy of the Pre-Hearing Stipulation for the above-referenced matter.

The delay in providing this Stipulation to you was occasioned by further discussion between Petitioner and the Department of Environmental Regulation which took place through the first part of this week. As a result of those discussions, additional matters were agreed to thereby narrowing the issues and facts to be determined at the hearing on February 29, 1984. Accordingly, I was unable to obtain counsels' signatures and still provide this document to you as soon as possible.

I am, therefore, by copy of this letter, requesting that counsel for the Department of Environmental Regulation and the Department of Community Affairs arrange to stop by your office to sign the original Stipulation and file any exceptions to same. A copy of the Stipulation is being hand delivered this date to said counsel. I also intend to confirm this arrangement by telephone with all counsel.

I am further requesting that counsel for the Southwest Florida Water Management District indicate his position with regard to this stipulation in writing as soon as possible.

Respectfully submitted,

Van B. Cook

Van B. Cook
Chief Assistant County Attorney

VBC:dtr
Enc.

cc: John Bottcher, Esq.
Hamilton S. Oven, Jr., P.E.
Larry Keesey, Esq.
Stephen A. Walker, Esq.

1698q/0033p

STATE OF FLORIDA

DIVISION OF ADMINISTRATIVE HEARINGS

In Re: PINELLAS COUNTY RESOURCE RECOVERY PROJECT. Application for Power Plant Site Certification

Case No. 83-2355

PRE HEARING-STIPULATION

Pursuant to the Hearing Officer's Order dated January 25, 1984, Petitioner submits this pre-hearing stipulation:

(a) Nature of Controversy -

In 1979 Pinellas County, Florida received site certification for a steam electric generating resource recovery facility. In September, 1983 Pinellas County submitted a new application for a third boiler at the previously certified site. The proposed project will be a third resource resource recovery boiler designed to increase total solid waste processing capacity to 3,150 tons per day, with steam generated from the new boiler increasing the gross capacity of the plant by approximately 29MW (gross). The certification hearing required by Section 403.508, Florida Statutes, is for the purpose of determining whether the Petitioner's application for the location and operation of the proposed facility will produce minimal adverse effects on human health, the environment, the ecology of the land and its wild life, the ecology of state waters and their aquatic life, and to fully balance the increasing demand for electrical power plant location and operation with the broad interest of the public as provided in Chapter 403, Florida Statutes.

(b) Statement of each party -

Petitioner, Pinellas County - It is the position of the Petitioner that its application for site certification of its proposed addition to its resource recovery facility should be granted as meeting the requirements and criteria of the applicable provisions of Chapter 403, Florida Statutes.

Department of Environmental Regulation -

DER recommends certification of the Petitioner's application if the Petitioner agrees to abide by conditions of certification proposed by the Department.

Public Service Commission -

The PSC has concluded a need exists for the expanded facility.

Department of Community Affairs -

DCA has concluded that for the most part the proposed addition meets most of the objectives, goals, and policies of the State Comprehensive Plan and concludes that the increased negative land use (and other) impacts generated by the proposed facility expansion are outweighed by the benefits the expansion would provide in; (1) reducing the amount of landfill area needed, (2) recovering metals, and (3) producing electrical power.

Southwest Florida Water Management District -

This department does not object to certification and encourages the use of reclaimed water for its industrial non-potable needs as proposed in Petitioner's application.

(c) Exhibits -

1. Petitioner, Pinellas County's revised application for power plant site certification of the proposed boiler expansion at its resource recovery facility.

2. The report of the Department of Community Affairs required by Section 403.507(1)(a), Florida Statutes.

3. The report from the Public Service Commission required by Section 403.507(1)(b), Florida Statutes.

4. The report of the Southwest Florida Water Management District required by Section 403.507(1)(c), Florida Statutes.

5. The report required by the Department of Environmental Regulation required by Section 403.507(2), Florida Statutes, dated January 27, 1984, as amended, including conditions of certification.

6. (Composite) Air quality emission data and modeling results.

7. Ambient Air Quality data for site and vicinity.

8. Land Use Plans, zoning ordinances and diagrams for the site and general vicinity.

(d) List of Witnesses -

Robert J. Van Deman
1728-72nd Ave. No., St. Petersburg, Florida 33702

*Expert witness - Engineering, Resource Recovery Facilities

James C. Andrews
440 Bell Lane, Milton, Florida 32570

*Expert witness - Environmental Sciences

Andrew Szurgot
Signal-Resco Inc., 10 UOP Plaza, Des Plains, Illinois 60016

*Expert witness - Environmental Engineering

D. F. Acenbrack
2800 110th Avenue North, St. Petersburg, Florida 33702

*Expert witness - Civil Engineering

Hamilton S. Oven, Jr., P.E.
Administrator, Power Plant Siting Section
Department of Environmental Regulation
2600 Blair Stone Road, Tallahassee, Florida 32301

*Expert witness - Power Plant Siting

Peter A. Hessling
Pinellas County Department of Environmental Management
440 Court Street, Clearwater, Florida 33516

*Expert witness - Air Quality

Larry Allen
Management Analysist
440 Court Street, Clearwater, Florida 33516

(e) Facts which are admitted -

Those facts contained in Petitioner's application for site certification (Exhibit 1), the Department of Environmental Regulation's staff analysis (Exhibit 5), and the reports required of the parties pursuant to Section 403.507,

Florida Statutes (Exhibits 2, 3, and 4), except to the extent same are conflicting or inconsistent in said exhibits, or are specified in (g) herein or are typographical, or are technical in nature and non-substantive or not material. Specifically included are those facts contained in Petitioner's application and the Department of Environmental Regulation's staff analysis pertaining to the general description of the proposed expansion, a general description of the site and facilities, a general description of the need for the facility, and existing land use and zoning regulations. Also specifically included are the findings of fact contained in the report of the Florida Public Service Commission pertaining to electrical system reliability and integrity and maintenance of an adequate electrical supply at a reasonable cost while reducing dependence on fossil fuel; the Department of Community Affairs' findings pertaining to alternative energy technologies and fuels, resource conservation and recovery, reuse of waste water, aesthetics, flooding, and land use compatibility; the Southwest Florida Management Districts' findings pertaining to the use of water; the Department of Environmental Regulations' findings pertaining to cooling system requirements, construction and operational safeguards, proximity to transportation systems, soil and foundation conditions, impact on suitable present and projected water supplies, impact on surrounding land uses, and accessibility to transmission quarters.

(f) Issues of law agreed to -

These proceedings are being held pursuant to applicable provisions of Chapter 403, Florida Statutes, pertaining to power plant site certification; statutory notice requirements have been complied with, providing notice to all persons and parties entitled thereto, as well as to the general public, with the exception of any technical defect pertaining to the required number of days prior notice, which shall be the subject of a motion for waiver of said defect as further defined in (j) herein; the record of the hearing shall consist of all

pleadings and papers filed therein including site certification application, as amended, the transcripts of all hearings, all orders entered by the hearing officer, and all other evidence and exhibits properly admitted; that the applicant and other parties to this proceeding will comply with the applicable provisions of Chapter 403, Florida Statutes pertaining to power plant site certification, and that the proposed facility is consistent and in compliance with existing land use plans and zoning ordinances and no land use hearing is required or necessary.

(g) Issues of fact to be litigated -

1. The appropriate emissions limitations and control technology pertaining to air quality (i.e. as contained in the proposed conditions of certification of the Department of Environmental Regulation).

2. The design and construction requirements for an electrostatic precipitator (i.e. contained in proposed conditions of certification).

3. Chlorination treatment requirements (i.e. proposed conditions of certification).

4. Appropriate treatment of cooling tower blow down (i.e. proposed conditions of certification).

5. Appropriate materials for daily cover (i.e. proposed conditions of certification).

6. Permissible materials which may be placed below maximum ground water levels and a definition of "fly ash" (i.e. proposed conditions of certification).

(h) Issue of law to be determined -

1. Whether the reports required pursuant to Section 403.507, Florida Statutes, recommend certification of the proposed facility.

2. Whether the Department of Environmental Regulation recommends certification of the proposed facility subject to the Department's recommended conditions of certification.

3. Whether the Department of Environmental Regulation's proposed conditions of certification are appropriate and, if not, what conditions of certification are appropriate.

4. Whether the location and operation of the proposed facility, as described by the evidence in the record, and subject to certain conditions of certification are expected to produce minimal adverse effects on human health, the environment, the ecology of the land and its wild life, and the ecology of state waters and their aquatic life.

5. Whether the operational safeguards for the proposed facility are technically sufficient for the welfare and protection of the citizens of Florida.

6. Whether the certification is consistent with the provision of abundant low cost electrical energy.

7. Whether proposed air pollution control equipment will prevent the operation of the facility from causing significant deterioration of ambient air quality in the vicinity.

8. Whether the construction and operation of the proposed facility will satisfy the prevention of significant deterioration criteria in the application of the best available control technology standards.

9. Whether certification, including conditions of certification, can or should be made applicable to the applicant's previous site certification granted July 20, 1979.

(i) Rules of evidence -

No disagreement.

(j) Motions -

Petitioner and the Department of Environmental Regulation intend to move instanter at the hearing in this cause for the waiver of any technical deficiency in notice requirements pertaining to the number of days of advance notice prior to the hearing.

(k) Signatures -

Van B. Cook

VAN B. COOK
Chief Assistant County Attorney
for Petitioner, Pinellas County

JOHN BOTTCHER, Esq.
Department of Environmental
Regulation

LARRY KEESEY, Esq.
Department of Community Affairs

STEPHEN A. WALKER, Esq.
Southwest Florida Water
Management District

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing has been hand delivered to JOHN BOTTCHER, Esq., Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, FL 32301, and LARRY KEESEY, Esq., Department of Community Affairs, 2571 Executive Center Circle East, Tallahassee, FL 32301, and furnished by U. S. Mail to STEPHEN A. WALKER, Esq. Southwest Florida Water Management District, 2379 Board Street, Brooksville, FL 33512-9711, this 24th day of February 1984.

VAN B. COOK
SPN 72241
Chief Assistant County Attorney
315 Court Street
Clearwater, Florida 33516
(813) 462-3354

1533p/0033p

cc John Bottcher

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

2379 BROAD STREET, BROOKSVILLE, FLORIDA 33512-9712
PHONE (904) 796-7211 SUNCOM 684-0111

February 10, 1984

Received DER

FEB 17 1984

P P S

Hamilton S. Oven, Jr., P. E.
Administrator, Power Plant Siting Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Re: Pinellas County Resource Recovery Project

The Southwest Florida Water Management District submitted its report pursuant to Section 403.507(1)(c), Florida Statutes, on September 22, 1983, respecting the subject application for proposed boiler expansion at this previously certified resource recovery site.

Such report is contained within the report prepared by the Department of Environmental Regulation and approved by the Secretary, including attached Conditions of Certification on January 27, 1984.

The District has no further comment to submit and wishes to advise that its September 22, 1983 report is its final Report.

Further, the District has no objection to an expedited final hearing but it does not expect to participate therein.

Sincerely,

STEPHEN A. WALKER
General Counsel

SAW/KAL/dl

cc: G. W. Kuhl
W. D. Courser

cc Rodney Benan
Leslie Williams

BOARD OF COUNTY COMMISSIONERS

DEPARTMENT OF SOLID WASTE MANAGEMENT
2800 110TH AVENUE NORTH
ST. PETERSBURG, FLORIDA 33702
PHONE (813) 825-1565

February 7, 1984

Mr. Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting Section
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

Dear Mr. Oven:

Enclosed is a six month summary of the virus and Legionella monitoring program being conducted at the Pinellas Resource Recovery Facility by the HRS Epidemiology Research Center. This report is submitted as supplementary information to the Alternative Disinfection Proposal forwarded to the Department on January 13, 1984.

If you have any questions, please do not hesitate to call.

Sincerely,

D. F. Acenbrack, Director
Solid Waste Management

ACE:rlb
Enclosures
cc: Dan Williams, DER Tampa
Gene E. Jordan, Dir. PW&U
W. W. Dasher, Dir. PW Opns
W. Gray Dunlap, County Attorney

DEPARTMENT OF
Health & Rehabilitative Services
Epidemiology Research Center
4000 West Buffalo Avenue, Tampa, Florida 33614

Bob Graham, Governor

Received DER
January 10, 1984

FEB 10 1984

PPS

D. F. Acenbrack, Director
Solid Waste Management
Pinellas County Solid Waste System
2800 110 Avenue, North
St. Petersburg, FL 33702

Dear Mr. Acenbrack:

Enclosed is a six month summary of our virus and Legionella monitoring at the Resource Recovery Facility. I must apologize for not sending you a three month report, which according to the date of the contract would have been in August. Unfortunately, we did sample the facility in May but due to problems with the mobile laboratory and our other commitments, samples were not obtained in June. Therefore, I believe the official starting date should be 7-20-83 as stated in the report. We will just ignore the May samples. They were negative anyway.

My major concern is whether or not this will pose any problem for the fiscal officers. I read the Purchase Order carefully. Because there is no cut-off date, there should be no problem in extending the work to July 19, 1984, as opposed to May, 1984.

I am more than pleased with the results to date. That one isolate as far as I am concerned can be attributed to a faux pas on the part of the design of the Northwest Treatment Plant. It is being fitted now for alum feed and we will hope that breakthrough will not recur.

The invoice for the six months work has been submitted to the Finance Department, 315 Court Street, Clearwater, as requested on the Purchase Order.

If you have any questions about the report, please feel free to contact me.

Sincerely,

Flora Mae Wellings, Sc.D.
Director
Epidemiology Research Center

FMW:ms
enc.

RECEIVED
JAN 13 1984
60616
PINELLAS COUNTY
SOLID WASTE DEPT.

JAN 1984
H D R
St. Petersburg

SEMI-ANNUAL REPORT

VIRUS AND LEGIONELLA SURVEILLANCE AT THE SOLID WASTE RESOURCE AND RECOVERY FACILITY PINELLAS COUNTY, FLORIDA

January 10, 1984

By
Flora Mae Wellings, Sc.D.
Director
Epidemiology Research Center
State of Florida
Department of Health & Rehabilitative Services
Office of Laboratory Services
4000 West Buffalo Avenue
Tampa, Florida 33614

EXECUTIVE SUMMARY

After six months of surveillance for viruses and Legionella at the Solid Waste Resource Recovery Facility, virus was demonstrated only once (7-20-83) in the recirculated water. This was probably due to a direct by-pass of high solids containing water from the inflow to the circulating blow-down waters. This cannot be considered as a significant finding in view of the preponderance of negative samples. No Legionella have been demonstrated.

VIROLOGICAL MONITORING AT PINELLAS COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

Virological monitoring of the Pinellas County Solid Waste Resource Recovery Facility was initiated on July 20, 1983. The cooling water for the facility was obtained from the City of St. Petersburg's Northeast Wastewater Treatment Plant (NEWTP). Because these waters were treated extensively, i.e., secondary biological treatment, clarification, alum coagulation, filtration, and chlorination, few, if any, viruses were anticipated to be present in the reclaimed water.

In addition to the viral monitoring, samples were processed for the presence of Legionella organisms. These have been demonstrated, though infrequently, in cooling tower waters in other areas of the country.

This report covers the first six months of surveillance activities .

MATERIALS AND METHODS

Sample Collection

Three samples were obtained monthly from the NEWTP, from the chlorinated reclaimed water entering the Resource Recovery Facility and from the recirculated water which represents the blow-down water.

Virus Concentration

Viruses in the small influent samples were concentrated by the polyethylene glycol (PEG) hydroextraction method. Briefly, this consisted of placing the 500 mL sample into a dialysis tubing with a 24 A pore size clampled shut at one end. After filtering, the other end was securely clamped and the tubing exposed to PEG overnight at 4°C. The following morning the residual in the tubing was carefully removed into a sterile container and the tubing thoroughly washed with eluting medium at pH 9. This was added to the sterile beaker containing the initial residual and the supension was subjected to sonication. Following this, the suspension was centrifuged and filtered to remove bacteria, treated with antibiotics and stored at -70°C until assayed for virus.

Viruses in large samples were concentrated by the cellulose nitrate Millipore filter technique. A 50 gallon sample was collected in a plastic drum. With the addition of sufficient 10 NHCl and $MgCL_2 \cdot 6H_2O$, a pH 3.5 and a magnesium ion concentration of 0.05M were achieved. Celite (diatomaceous earth) was added to prolong the life of the membrane. The prepared sample was passed under pressure through a 0.45 um pore sized Millipore filter(s). Following filtration, the filter(s) was eluted in situ with 500 mL of eluting medium at pH 9.0. The filtrate was placed in a resealable plastic bag. The membrane(s) was placed in a resealable plastic bag(s) containing approximately 50 mL of eluting medium. All samples and membranes were held at 4°C for transport to the base laboratory. Here the filtrate was further concentrated by PEG hydroextraction as was the eluting medium in each of the membrane filter bags following thorough extraction in the Stomacher Apparatus. Concentrates were held at 4°C until assayed.

Virus Assay

Concentrates were thawed rapidly at 37°C, tested for toxicity by inoculation into tube cultures of Buffalo green monkey (BGM) kidney cells. If toxicity was not noted, specimens were inoculated in 0.5 mL amounts onto BGM cell cultures in 25 cm^2 plastic bottles. If the concentrate were toxic, it would be extracted with chloroform before inoculation. After a two hour adsorption period during which the bottles were slowly rocked on a mechanical rocker, the bottles were overlayed with a maintenance medium containing agarose, followed in 72 hours by a second comparable overlay containing neutral red. Observations for plaque forming units (PFU) were made daily for fourteen days. Individual plaques were picked and inoculated into BGM tube cultures to confirm the PFU and to produce sufficient virus for identification.

Virus Identification

Virus identification was based on neutralization tests using pooled immune sera in the microneutralization method in plates.

Legionella Sample Collection

Three 1000 mL (1L) water samples were obtained aseptically on a monthly basis. Sodium thiosulfate was added to a sterile container and the container filled carefully. Samples were held at ambient temperatures until delivered to the base laboratory.

Legionella Concentration

The sample water was passed through one or more 47 mm, 0.4 um Nucleopore membrane filters under vacuum. The filters were placed in 10 mL of the filtrate and sonicated to dislodge organisms from the filter. A portion of the resulting suspension was acidified to pH 2, plated on beef buffered charcoal yeast extract (BCYE) agar and incubated at 37°C for 4 to 5 days. Positive controls included Legionella inoculated sample water and filtered sample water.

Typical colonies were picked and transferred to BCYE agar at 37°C and 20°C and to Tryptone Saga agar at 37°C and 20°C. Those colonies growing only on BCYE agar at 37°C were considered to be Legionella isolates.

RESULTS

Influent

Relatively large numbers of viruses entered the NEWTP over the study period, ranging from a low of 72.67 PFU/L to a high of $\geq$413.33 PFU/L with an average of $\geq$201.60 PFU/L. (See Table 1 in Appendix) The results of the December samples are not complete so these data represent a five month period.

Reclaimed Water

No virus was demonstrable in the reclaimed water entering the Resource Recovery Facility.

Blow-down Water

The only virus isolate obtained was from a 21 gal sample of blow-down water on 7-20-83. Three samples were obtained but only one yielded a virus which was

identified as coxsackie type B5. Based on the volume sampled that day, the number of PFU/L was 0.004.

Legionella Studies

No Legionella isolates were obtained from the 24 liters of water tested even though the residual chlorine in the blow-down water was inactivated at the time of collection. (See Table 4, Appendix.) All controls were positive.

DISUCSSION

The single isolate obtained from the blow-down water was unexpected. However, it does reaffirm the fact that viruses are never homogeneously distributed in any medium. There are probably several possible explanations for the virus being present in the recirculated waters. The most likely is that it entered the recirculation cycle directly from the inflowing reclaimed water. This opinion is based on the fact that on 7-20-83, the reclaimed water was difficult to filter, i.e., only 30 gal could be processed through two filters, whereas, usually 50 gal were filtered without difficulty. (See Table 2, Appendix.) The same problem occurred with the recycled water, but it was even more pronounced. The three specimens processed that day required three filters each for the 20 gal, 18 gal and 21 gal samples, whereas, on other days, only two filters were used for processing 50 gal. (See Table 3, Appendix.) This usually indicates that solids are present which prematurely clog the membranes.

It should be noted that the recirculated water was sampled before the reclaimed water. It is possible that a surge of poorly treated reclaimed water entered the circulation system during the sampling period. By the time the reclaimed water was sampled the surge, which may have contained the bulk of the virus, was abating because the amount of water that could be processed per filter had increased to 15 gal versus the 6 to 7 gal/filter of the recirculated water.

Why this should have occurred is not clear. However, during the same period the Northwest Wastewater Treatment Plant (NWWTP) on several occasions had to discharge their effluents into the distribution lines. At that plant, there is no alum feed and the filter is a dual media constant backwash filter which at times does not function as efficiently as it should. The fact that no virus was demonstrable in the NEWTP reclaimed water during this period would appear to strengthen the theory that the problem stemmed from the NWWTP.

The failure to isolate Legionella organisms may be due to the high level of chlorine maintained in the blow-down water or due to the fact that the numbers present are below detectable limits. The number of samples were doubled in November and December but still no Legionella were demonstrated.

The technique is being altered in two aspects to enhance the sensitivity of the test. First, large volumes (25 gal) will be filtered on site and the membranes returned to the laboratory for processing. Secondly, several approaches will be tried to reduce the final volume to a level where the entire concentrate can be assayed economically. Through these concentration procedures, we should increase the sensitivity of the test significantly.

APPENDIX

TABLE 1

INFLUENT - NORTHEAST WASTEWATER TREATMENT PLANT

Date	Volume Tested (mL)	Number of PFU	Average Number of PFU/L/Month
07-26-83	500	≥109	≥287.33
	500	≥169	
	500	≥153	
08-16-83	500	21	≥72.67
	500	17	
	500	71	
09-20-83	500	≥82	≥159.33
	500	≥76	
	500	≥81	
10-18-83	500	57	75.33
	500	31	
	500	25	
11-30-83	500	≥240	≥413.33
	500	≥240	
	500	≥140	
Average			≥201.60

TABLE 2

Station 12C - Influent - Resource Recovery Facility

ACCESSION NUMBER	DATE	VOLUME TESTED	PFU DAY 7	PFU DAY 14	FINAL PFU	AVERAGE NUMBER OF PLAQUE FORMING UNITS PER SAMPLE	AVERAGE NUMBER OF PLAQUE FORMING UNITS PER LITER	FILTER	pH
J-18 J-19	07-20-83	IWHE 30 gal	0	0	0			MCX2*	3.5
J-20 J-21		IWHE 30 gal	0	0	0			MCX2	3.5
J-22 J-23		IWHE 30 gal	0	0	0			MCX2	3.5
J-33 J-34	08-22-83	IWHE 50 gal	6/6**		0			MCX2	3.5
J-35 J-36		IWHE 50 gal	0	0	0			MCX2	3.5
J-37 J-38	08-23-83	IWHE 50 gal	0	0	0			MCX2	3.5
J-48 J-49	09-19-83	IWHE 50 gal	0	0	0			MCX2	3.5
J-50 J-51		IWHE 50 gal	0	0	0			MCX2	3.5
J-61 J-62	10-17-83	IWHE 50 gal	0	0	0			MCX2	3.5
J-63 J-64		IWHE 50 gal	0	0	0			MCX2	3.5
J-65 J-66		IWHE 50 gal	0	0	0			MCX2	3.5
J-79 J-80	11-29-83	IWHE 50 gal	0	0	0			MCX2	3.5
J-81 J-82		IWHE 50 gal	0	0	0			MCX2	3.5
J-83 J-84		IWHE 50 gal	0	0	0			MCX2	3.5

(Continued)

* X2 = Number of membranes used.
**Toxic after chloroform treatment.

TABLE 2 (Continued)

Station 12C - Influent - Resource Recovery Facility

ACCESSION NUMBER	DATE	VOLUME TESTED	PFU DAY 7	PFU DAY 14	FINAL PFU	AVERAGE NUMBER OF PLAQUE FORMING UNITS PER SAMPLE	AVERAGE NUMBER OF PLAQUE FORMING UNITS PER LITER	FILTER	pH
J-97 J-98	12-12-83	IWHE 50 gal	0	0	0			MCX2	3.5
J-99 J-100		IWHE 50 gal	0	0	0			MCX2	3.5
J-101 J-102		IWHE 50 gal	0	0	0			MCX2	3.5

Station 21 - Blow-down Water

ACCESSION NUMBER	DATE	VOLUME TESTED	PFU DAY 7	PFU DAY 14	FINAL PFU	AVERAGE NUMBER OF PLAQUE FORMING UNITS PER SAMPLE	PER LITER	FILTER	pH
J-12	07-20-83	IWHE 20 gal	0	0	0			MCX3*	3.5
J-13									
J-14		IWHE 18 gal	0	0	0	0.33	0.004	MCX3	3.5
J-15									
J-16		IWHE 21 gal	0	0	1**			MCX3	3.5
J-17									
J-27	08-22-83	IWHE 50 gal	0	0	0			MCX2	3.5
J-28									
J-29		IWHE 50 gal	0	0	0			MCX2	3.5
J-30									
J-31		IWHE 50 gal	0	0	0			MCX2	3.5
J-32									
J-42	09-19-83	IWHE 50 gal	0	0	0			MCX3	3.5
J-43									
J-44		IWHE 50 gal	0	0	0			MCX3	3.
J-45									
J-46		IWHE 50 gal	0	0	0			MCX3	3.
J-47									
J-55	10-17-83	IWHE 50 gal	0	0	0			MCX2	3.
J-56									
J-57		IWHE 50 gal	0	0	0			MCX2	3.
J-57									
J-59		IWHE 50 gal	0	0	0			MCX2	3.
J-60									
J-70	11-29-83	IWHE 50 gal	0	0	0			MCX2	3.
J-71									
J-72		IWHE 50 gal	0	0	0			MCX2	3.
J-73									
J-74		IWHE 50 gal	0	0	0			MCX2	3.
J-75									

(Continued)

* X3 = Number of membranes used.
**Serologically identified as Coxsackie virus B5

TABLE 3 (Continued)

Station 21 - Blow-down Water

ACCESSION NUMBER	DATE	VOLUME TESTED	PFU DAY 7	PFU DAY 14	FINAL PFU	AVERAGE NUMBER OF PLAQUE FORMING UNITS PER SAMPLE	AVERAGE NUMBER OF PLAQUE FORMING UNITS PER LITER	FILTER	pH
J-91	12-12-83	IWHE 50 gal	0	0	0			MCX2	3.5
J-92									
J-93		IWHE 50 gal	0	0	0			MCX2	3.5
J-94									
J-95		IWHE 50 gal	0	0	0			MCX2	3.5
J-96									

TABLE 4

LEGIONELLA RESULTS SUMMARY

Date	Volume Tested (L)	Number of Suspect Colonies Tested	Number Growing at 37°C in BCYE Only
07-20-83	1	12	0
	1	35	0
	1	4	0
08-22-83	1	41	0
	1	16	0
	1	0	0
09-1-83	1	6	0
	1	0	0
	1	8	0
10-7-83	1	5	0
	1	4	0
	1	7	0
11-28-83	1	4	0
	1	1	0
	1	0	0
	1	2	0
	1	3	0
	1	10	0
-15-83	1	9	0
	1	0	0
	1	1	0
	1	4	0
	1	1	0
	1	3	0

February 6, 1984

Mr. William E. Williams
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301

RE: Pinellas County Resource Recovery Project
PA 83-18, DOAH Case No. 83-2355

Dear Mr. Williams:

Enclosed please find copies of the News Release, newspaper notice and Florida Administrative Weekly notice for the power plant site certification hearing for the Pinellas County Resource Recovery Project.

Sincerely,

Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting Section

HSOjr/sb

cc: All Parties

DER – Pinellas County 2/6/84

Buck Oven	DER	(904) 488-0130
Gray Dunlap	Cty Atty - P.C.	813 462-3354
Bob Van Deman	HDR	813-577-9455
Vicki Andrews	HDR	904-432-2481
Ace Acenbrack	P/C	813-825-1565
Van B. Cook	Pin Co.	813 462-3354
Gene E. Jordan	Pin. Co.	813/462-3251
Andrew M. Szurgot	Signal Resco	312/391-3744
Bruno R. Dunn	Signal Resco	312 391-3519
Peter A. Hessling	Pinellas Co. Dept. Env. Mgt.	813-530-6522
Ed Palagyi	DER, BAQM	(904) 488-1344
Bill Thomas	"	488-1344

Precipitator - designed for .03
Permit XIV A.2

delete 9. or revise for periodic testing

~~Ambient~~ Stack Emission Limitation
Can't guarantee - SO_2 emission limit
1.2 lbs/10^6 Btu - Battelle paper

Visible emission.
Want 20% - No guarantee
Recognize start up - in order spike

Limits on CO, NO_x & Pb - are literature values - too restrictive

$\frac{24}{7.2}$ $\frac{192}{19.9}$

$\frac{10.50}{24}$ Tons

$\frac{2.5}{1.9} \times 83$

1.9 lbs/Ton

44 T/hr

$\frac{1.9}{39.6}$ $\frac{44}{63.6}$

2.5 lbs/Ton

AP-42

$\frac{43}{24}$ $\frac{1050}{96}$ $\frac{96}{90}$

AGENDA

PINELLAS REFUSE TO ENERGY
UNIT 3 PPSA STAFF COMMENTS
6 FEB. 1984

1. INTRODUCTION & MEETING OBJECTIVES
2. SECTION XIV. A.3.d - SO_2 MONITORS - same as old
3. SECTION XIV. A.1.e - EMISSIONS TEST BASIS
4. SECTION XIV. A.2 - ESP DESIGN & OPERATION
5. SECTION XIV. D.2.a. - SITE GROUNDWATER CLASS. ✓
6. SECTION XIV. E.9 - HAZARDOUS WASTE ~~DETERMINATION~~ delete
7. SECTION XIV. E.6 - FLY ASH Look at ✓
8. ~~SECTION XIV. A.1.a. - EMISSIONS LIMITATIONS~~ 1.9 lbs/Ton
   - A. SO_2
   - B. VISIBLE EMISSIONS
   - C. CO, NOx & LEAD - 0.4.
9. ~~SECTION XIV. E.6~~ - ZONE OF DISCHARGE ✓ wants to boundary

~~3~~ 3.6 max 24 hr.

Remodeled @ 3 lbs/Ton SO_2 - 131 lbs/hr. Max 24 hr avg
@ 3.5 lbs/Ton NO2
1.5 " " CO
1.0 " " Lead
} No real problem

1.6 / 1.2 = 2/3 = 4/6

1.6 × 1.9 = 14.4 / 16/4 = 3.0

6 lbs/Ton - Max 3 hr avg.
3 lbs/Ton - Max 24 hr avg
1.9 lbs/Ton - Annual Average

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee

To: Buck Oven Loctn.: Permitting
To: _____ Loctn.: _____
To: _____ Loctn.: _____
From: Don Kell Date: 2/7/84
Reply Optional [ ] Reply Required [ ] Info. Only [ ]
Date Due: _____ Date Due: _____

TO: Hamilton Oven, Jr., Professional Engineer, Administrator
Bureau of Permitting

THROUGH: Rodney S. DeHan, Administrator RSD
Groundwater Section

FROM: Don Kell, Engineer DJK
Groundwater Section

DATE: January 31, 1984

SUBJECT: Pinellas County Resource Recovery Plant: Treatment of Tertiary Waste Water Makeup to Cooling Towers

We have no adverse comment regarding Pinellas County's proposal.

DK/mj

Buck
I have reviewed Pinellas Co. plan & agree with Dr. Wedding. I have no problem with it as long as monitoring continue to indicate no significant survival
Rodney
2/6/84

The **Department of Environmental Regulation** announces a public hearing scheduled by the Environmental Regulation Commission to which interested persons are invited.
DATE AND TIME: February 29, 1984, 9:00 A.M.
PLACE: Fourth Floor Conference Rooms, Twin Towers Building, 2600 Blair Stone Road, Tallahassee, Florida.
PURPOSE: To receive testimony and public comment and take action on management, including project elevation, bypass, and removal, of the Fiscal Year 1984 Priority and Advance Allowance Lists for Wastewater Treatment Works. Projects potentially subject to priority list management action are Okaloosa County 644100 (EPA I.D. Number), St Petersburg 631090, Key West 465080, and Atlantic Beach 747030. A project potentially subject to Advance Allowance List management action is Williston 649020.
For further information, contact the Bureau of Wastewater Management and Grants, 2600 Blair Stone Road, Tallahassee, FL 32301.

The **Florida Department of Environmental Regulation** announces a public hearing to which the public is invited.
DATE AND TIME: February 29, 1984, at 10:00 a.m.
PLACE: Pinellas County Courthouse, 5th Floor Assembly Room, 315 Court Street, Clearwater, Florida
PURPOSE: To conduct a hearing relative to the effects of Pinellas County's proposed site for a 29 megawatt Resource Recovery power plant as required by the Florida Electrical Power Plant Siting Act, Section 403.508, Florida Statutes. Mr. William Williams, Hearing Officer, will conduct the hearing. Anyone wishing to become a party to the proceeding should contact Mr. Williams at the Division of Administrative Hearings, the Oakland Building, 2009 Apalachee Parkway, Tallahassee, Florida 32301.

The **Florida Public Service Commission** announces a hearing to be held in the following docket, to which all interested persons are invited.
Docket No. 830377-EU — Proceedings to implement cogeneration rules.
DATE AND TIME: Tuesday, February 14, 1984, 9:30 A.M.
PLACE: Room 106, Fletcher Building, 101 East Gaines Street, Tallahassee, Florida 32301
PURPOSE: To conclude hearing held on January 19, 1984.

The **Florida Public Service Commission** announces a hearing to be held in the following docket, to which all interested persons are invited.
Docket No. 830465-EI — Petition of Florida Power and Light Company for an increase in rates.
DATE AND TIME: Monday, February 20, 1984, 12:00 – 4:30 P.M. and 6:00 – 8:30 P.M.
PLACE: Holiday Inn Riverfront, Clipper Room, 2066 West 1st Street, Fort Myers, Florida
PURPOSE: To permit members of the public to give testimony regarding the rates and service of Florida Power and Light Company. The procedure at this hearing will be as follows: the Company will present a brief summary of its case and then members of the public may present testimony.

The **Florida Public Service Commission** announces a hearing to be held in the following docket, to which all interested persons are invited.
Docket No. 820519-WS — Application of Ocean Reef Club, Inc. for certificates to operate a water and sewer utility in Monroe County, Florida.
DATE AND TIME: Thursday, February 23, 1984, 10:00 A.M.
PLACE: Key Largo Holiday Inn, African Queen Meeting Room, Mile Marker 100, US1, Key Largo, Florida
PURPOSE: To allow the Commission an opportunity to hear evidence in support of the positions of the parties and to resolve those issues consistent with the laws of the State of Florida and Commission policy.

The **Northwest Florida Water Management District** announces a public hearing to which all interested persons are invited.
DATE AND TIME: February 23, 1984, 1:15 EST
PLACE: Auditorium, Apalachicola River and Bay National Estuarine Sanctuary, on Market Street adjacent to Mill Pond in Apalachicola
PURPOSE: To incorporate unanticipated funds into the current operating budget.
A COPY OF THE AGENDA MAY BE OBTAINED by contacting Ann Roberts, Agency Clerk, Northwest Florida Water Management District, Route 1, Box 3100, Havana, Florida 32333, (904)487-1770

The **Southwest Florida Water Management District** announces the following public hearings and meetings to which all interested persons are invited:
PEACE RIVER BASIN BOARD
DATE AND TIME: Wednesday, February 8, 1984 at 10:00 a.m.
PLACE: Bartow Sub-District Office, 2020 SR 60 East, Bartow, Florida
PURPOSE: Consideration of Basin Business
A copy of the agenda for any of the above meetings or hearings may be obtained by writing to the Southwest Florida Water Management District, 2379 Broad Street, Brooksville, Florida 33512.
If a person decides to appeal any decision made by the board with respect to any matter considered at a hearing or these meetings, he will need a record of the proceedings, and for such purpose he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

BOARD OF COUNTY COMMISSIONERS
PINELLAS COUNTY, FLORIDA
315 COURT STREET
CLEARWATER, FLORIDA 33516

February 1, 1984

Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting Section
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Re: Pinellas County Site Certification

Dear Mr. Oven:

This letter is to confirm arrangements made over the telephone regarding the time of our forthcoming meeting. The meeting will be held on Monday, February 6, at 10:30 A.M. at your offices. I will be accompanied by Messrs. Dunlap, Jordan, Acenbrack and Andrews.

Very truly yours,

Van B. Cook

Van B. Cook
Chief Assistant County Attorney

VBC:dtr

cc: John Bottcher, Esq.
D. F. Acenbrack, Director Solid Waste
W. Gray Dunlap, County Attorney
Gene Jordan, Director of Public Works

1539q/0023p

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee

To: _____ Loctn.: _____
To: _____ Loctn.: _____
To: _____ Loctn.: _____
From: _____ Date: _____

Reply Optional [ ] Reply Required [ ] Info. Only [ ]
Date Due: _____ Date Due: _____

RECEIVED
FEB 1 1984
DIV. ENVIRONMENTAL PERMITTING

TO: Mr. Buck Oven, Power Plant Siting

THROUGH: Dr. G. J. Thabaraj, Chief, BWA GJT
Dr. Landon T. Ross, Chief Biologist
Administrator of Biology Section

FROM: Leslee A. Williams, Biology Section LAW

DATE: January 31, 1984

SUBJECT: Monitoring - General; Pinellas County Resource Recovery Facility

As requested, I have reviewed the document entitled "Proposed Cooling Tower Makeup Treatment Plan for Tertiary Treated Wastewater at the Pinellas County Resource Recovery Facility" and have prepared the following comments for your consideration.

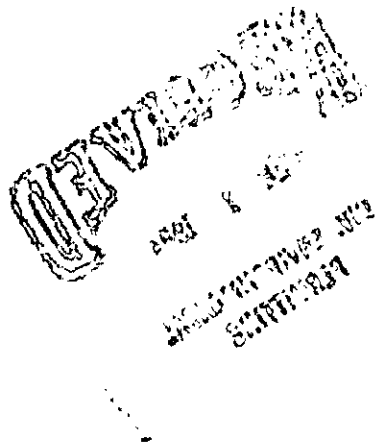
The treated effluent from both the City of St. Petersburg's Northeast Wastewater Treatment Plant and the Largo Wastewater Plant appears to be of high quality, that is, equivalent to tertiary treatment technology.

Through the virus monitoring studies conducted by Dr. F. M. Wellings, the chlorination practice used at the St. Petersburg Plant is sufficient to reduce virus to a "no detection" level. The described treatment level of the Largo Facility seems to be similar to St. Petersburg, although viral studies have not been done.

I have no objection to the use of an alternate chlorine compound in lieu of chlorine dioxide for the purpose of disinfection in cooling tower makeup waters. However, until the Largo Facility demonstrates the same high level of effluent treatment through virus monitoring studies, I would caution against a total chlorine residual determination rather than the specified free chlorine residual as a measure of disinfection levels. Oxidizing biocides for the control of slime growth in the cooling towers will, of course, be periodically necessary, in any case.

Upon the demonstration of a "no detection" viral level in the Largo effluent, I see no further problems with the proposed treatment plan.

LAW/cdw



Reduced from original size sheet which was 12"x13.5"

KKC 1/24/95

NOTICE OF CERTIFICATION HEARING ON AN APPLICATION TO CONSTRUCT AND OPERATE AN ELECTRICAL POWER PLANT ON A SITE TO BE LOCATED NEAR PINELLAS PARK, FLORIDA

1. Application number 83-18 for certification to authorize construction and operation of an addition to an electrical power plant near Pinellas Park, Florida, is now pending before the Department of Environmental Regulation, pursuant to the Florida Electrical Power Plant Siting Act, Part II, Chapter 403, F.S.

2. The resource recovery facility site is located in Pinellas County within the existing Pinellas County Resource Recovery Facility property 2 miles northeast of Pinellas Park, south of 114th Avenue, north and west of 28th Street North. The proposed additional plant will consist of one 1050 ton per day solid waste-fired unit with a 29 MW turbine generator. The power plant will be owned by Pinellas County.

3. The Department of Environmental Regulation has evaluated the application for the proposed power plant. Certification of the plant would allow its construction and operation. The application and the Department's analysis of the impacts of the plant are available for public inspection at the following addresses:

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION
Southwest District Office
7601 Highway 301 North
Tampa, Florida 33610

PINELLAS COUNTY
Department of Solid Waste Management
2800-110th Avenue North
St. Petersburg, Florida 33702

HERNANDO COUNTY DEPARTMENT OF
PLANNING AND ZONING
156 East Jefferson
Brooksville, Florida 33512

SOUTHWEST FLORIDA WATER
MANAGEMENT DISTRICT
2379 Broad Street (South U.S. 41)
Brooksville, Florida 33512

4. Pursuant to Section 403.508, Florida Statutes, the certification hearing will be held by the Division of Administrative Hearings on February 29, 1984, at 10:00 a.m., at the Pinellas County Courthouse, 5th Floor Assembly Room, 315 Court Street, Clearwater, Florida, in order to take written or oral testimony on the effects of the proposed electrical power plant or any other matter appropriate to the consideration of the site. Need for the facility has been predetermined by the Public Service Commission at a separate hearing. Written comments may be sent to William Williams (Hearing Officer) at Division of Administrative Hearings, 2009 Apalachee Parkway, Tallahassee, Florida, 32301, on or before February 21, 1984.

5. Pursuant to 403.508(4), F.S., (a) Parties to the proceeding shall include: the applicant; the Public Service Commission; the Division of State Planning; the water management district as defined in Chapter 373, in whose jurisdiction the proposed electrical power plant is to be located; and the Department. (b) Upon the filing with the Department of a notice of intent to be a party at least 15 days prior to the date set for the land use hearing, the following shall also be parties to the proceeding:

1. Any county or municipality in whose jurisdiction the proposed electrical power plant is to be located.

2. Any state agency not listed in paragraph (a) as to matters within its jurisdiction.

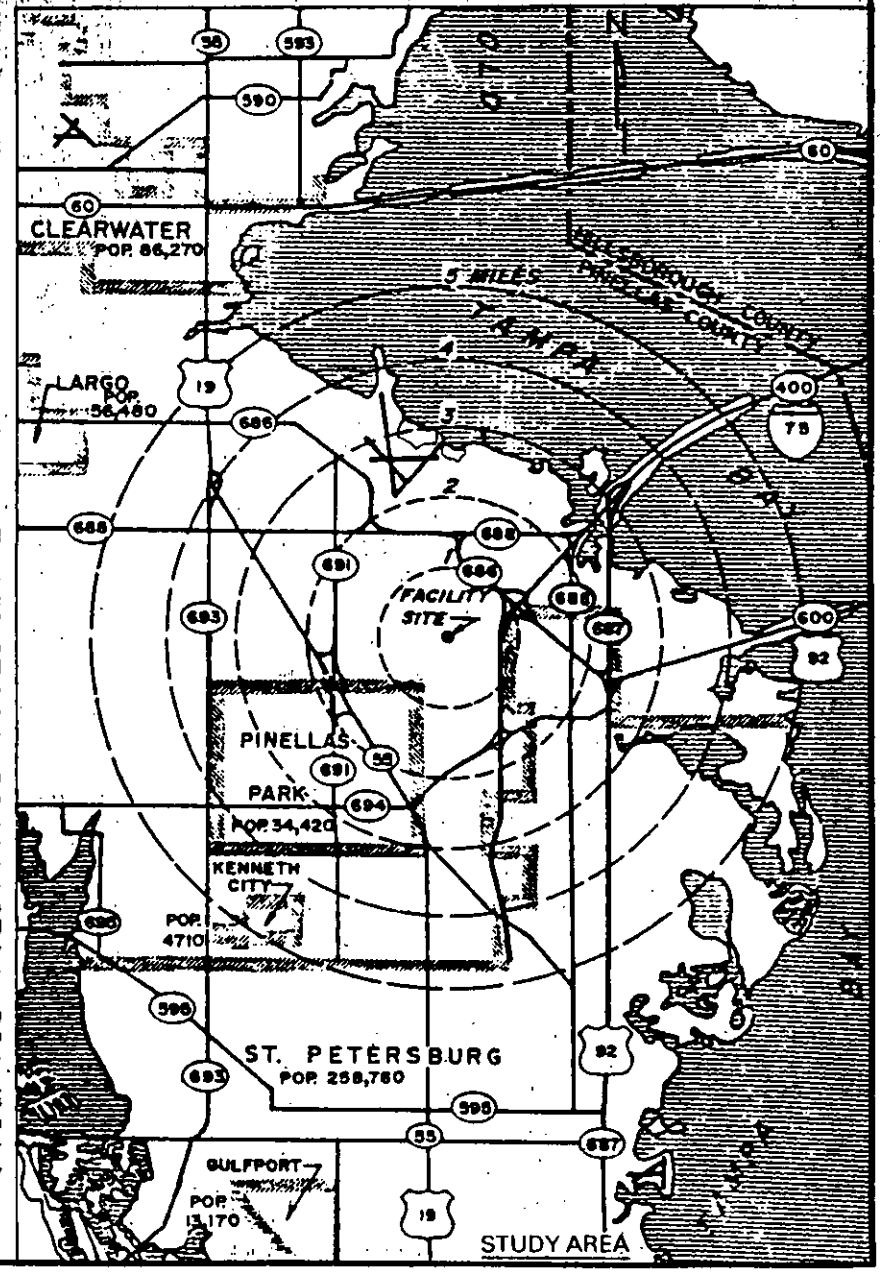
3. Any domestic non-profit corporation or association formed in whole or in part to promote conservation or natural beauty; to protect the environment, personal health, or other biological values; to preserve historical sites; to promote consumer interests; to represent labor, commercial or industrial groups; or to promote orderly development of the area in which the proposed electrical power plant is to be located.

(c) Notwithstanding paragraph (4)(d), failure of an agency described in subparagraphs (4)(b)1 and (4)(b)2 to file a notice of intent to be a party within the time provided herein shall constitute a waiver of the right of the agency to participate as a party in the proceeding.

(d) Other parties may include any person, including those persons enumerated in paragraph (4)(b) who failed to timely file a notice of intent to be a party, whose substantial interests are affected and being determined by the proceeding and who timely file a motion to intervene pursuant to chapter 120, F.S., and applicable rules. Intervention pursuant to this paragraph may be granted at the discretion of the designated hearing officer and upon such conditions as he may prescribe any time prior to 15 days before the commencement of the certification hearing.

(3) Any agency whose properties or works are being affected pursuant to s.403.509(2) shall be made a party upon the request of the department of the applicant.

6. Those wishing to intervene in these proceedings must be represented by an attorney or other person who can be determined to be qualified to appear in administrative proceedings pursuant to Chapter 120, F.S., or Chapter 17-1.21, FAC.



Buck -- here are the only sufficiency questions I have on Pinellas County:

Section 3.4.1 - When available, please provide the evaluation results of the blowdown sump water disposal on tidal wetlands.

Section 2.2. - When was the site rezoned from M-1 to P? While we recall the omission of the Commercially zoned parcel, we do not recollect the Public zoning being done as part of the certification's land use/zoning ratification.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

2600 Blair Stone Road
Tallahassee, Florida 32301

Victoria J. Tschinkel
Secretary

News Release

OFFICE OF PUBLIC INFORMATION (904) 488-9334/5

January 27, 1984
Kathy Cavanaugh

TALLAHASSEE - Certification to authorize construction and operation of an addition to an electrical power plant near Pinellas Park is pending before the Department of Environmental Regulation, and a hearing on the subject is scheduled for Feb. 29 in Clearwater.

The site of the resource recovery facility is located in Pinellas County within the existing Pinellas County Resource Recovery Facility property two miles northeast of Pinellas Park, south of 114th Avenue, and north and west of 28th Street North.

The proposed additional plant will consist of one 1050-ton per day solid waste-fired unit with a 29 MW turbine generator. The power plant will be owned by Pinellas County.

The DER has evaluated the application for the proposed power plant. Certification of the plant would allow its construction and operation. The application and department analysis of the impacts of the plant are available for public inspection by contacting Buck Oven, (904) 488-0130 in Tallahassee.

The Feb. 29 certification hearing by the Division of Administrative Hearings will begin at 10 a.m. at the Pinellas County Courthouse, 5th Floor Assembly Room, 315 Court Street, Clearwater.

Need for the facility has been predetermined by the Public Service Commission at a separate hearing.

Written comments may be sent to William Williams (Hearing Officer) at Division of Administrative Hearings, 2009 Apalachee Parkway, Tallahassee, Florida, 32301, on or before Feb. 21.

# # #

Best Available Control Technology (BACT) Determination
Public Works and Utilities
Pinellas County

The applicant plans to construct a third municipal solid waste fired boiler to increase the throughput of the existing resource recovery facility located in Pinellas County, Florida. The proposed mass burn Martin combustion system will be similar to the two existing units. The new unit will be capable of incinerating 1050 tons per day of municipal waste, and will increase the solid waste processing capacity of the facility to 3150 tons per day.

The proposed mass burn unit is designed for a heat input of 411 million Btu per hour based upon a waste heat content of 5000 Btu per pound. This added unit will increase the processing throughput of the facility to allow incineration of the solid waste expected to be generated over the next ten years.

Potential Air Pollutant Emissions (tons/year)

Particulate	- 109	(25)*
Sulfur Dioxide	- 577	(40)*
Nitrogen Oxides	- 577	(40)*
Carbon Monoxide	- 288	(100)*
Lead	- 58	(0.6)*
Beryllium	- .0002	(.0004)*
Mercury	- 2.1	(0.1)*
Hydrogen Fluoride	- 28	(3)*

* Regulated Air Pollutants - Significant Emission Rates. Florida Administrative Code Rule 17-2.500, Table 500-2

The steam generated will be used to produce electrical power for distribution into the peninsula grid system. The new source is being reviewed according to Florida Administrative Code Chapter 17-17, Electrical Power Plant Siting and Rule 17-2.500, Prevention of Significant Deterioration. The Bureau of Air Quality Management is performing the air quality review and the BACT determination for the siting committee. The certification number for the existing facility is PA 78-11.

BACT Determination Requested by the Applicant:

An electrostatic precipitator (ESP) will be installed to control the discharge of particulate matter at 0.03 gr/dscf, or less, corrected to 12% CO_2. The ESP will also control lead, beryllium and mercury emissions. Sulfur dioxide emissions will be limited by firing municipal waste, a low sulfur content fuel. Burner design and operating procedures will be the methods used to limit NOx emissions.

Burner controls will be installed to minimize the emission of CO due to incomplete combustion.

Date of Receipt of a BACT Application:

September 7, 1983

Date of Publication with Florida Administrative Weekly:

September 16, 1983

Review Group Members:

Bob King - New Source Review Section
Clair Fancy - Central Air Permitting
Tom Rogers - Air Modeling Section
Jim Estler - SW District Office
Jacob Stowers - Pinellas County DEM

BACT Determination by DER:

Pollutant	Emission Limits
Particulates	0.03 grains/dscf, corrected to 12 percent CO_2
Sulfur dioxide	83 pounds/hour
Nitrogen Oxides	132 pounds/hour
Carbon Monoxide	66 pounds/hour
Lead	1.3 pounds/hour
Mercury	3200 grams/day [1]
Visible Emissions	10% opacity

[1] When more than 2205 lb/day of municipal sewage sludge is fired, compliance with the mercury emission limit shall be demonstrated in accordance with 40 CFR 61, Method 101 Appendix B.

Compliance with the limitations for particulates, sulfur oxides and nitrogen oxides will be demonstrated in accordance with Florida Administrative Code Rule 17-2.700, DER Methods, 1,2,3,5,6 and 40 CFR 60, Appendix A; Method 7. Compliance with the opacity limit shall be demonstrated in accordance with Florida Administrative Code Rule 17-2.700(6)(2)9., DER Method 9.

A continuous monitoring system to measure the opacity of emissions shall be installed, calibrated, and maintained in accordance with the provisions of Rule 17-2.710 - Continuous

Monitoring Requirements. The CEM must be installed and operational prior to compliance testing.

BACT Determination Rationale

The proposed mass burn combustion unit will have a charging rate more than 50 tons per day, and therefore, subject to the provisions of 40 CFR 60.50, Subpart E, New Source Performance Standards (NSPS). The NSPS for particulate matter emissions is a rate not to exceed 0.08 grains/dscf corrected to 12 percent CO_2. The applicant has proposed to limit the particulate emissions rate not to exceed 0.03 grains/dscf corrected to 12 percent CO_2. An electrostatic precipitator (ESP) will be installed to control particulate emissions at the proposed rate. The two existing mass burn units have a permitted particulate emission limit not to exceed 0.08 grains/dscf (NSPS).

The Department agrees that the use of an ESP is an air pollution control technology currently capable of achieving the 0.03 grain/dscf particulate emission limit, and is considered BACT for this source. The baghouse is another control device capable of achieving the particulate emission limit determined as BACT, but was not recommended for two reasons: 1) the existing combustion units use ESPs, therefore the spare parts inventory is minimized, and 2) maintenance and operating personnel have experience with this type of control device.

The mercury emission limit is the National Emission Standard for Hazardous Air Pollutants (NESHAPs), 40 CFR 61.50, Subpart E, for municipal waste water sludge incineration plants. The proposed source would be subject to the provisions of NSPS, 40 CFR 60.150, Sewage Treatment Plants, if more than 2205 pounds per day (dry basis) of municipal sewage sludge is charged. The Department has determined the emission limit for mercury to be 3200 grams per day applicable only when more than 2205 pounds per day (dry basis) of municipal sewage sludge is charged into the mass burn combustion unit. The Department has determined the limit for SO_2 emissions to be 83 pounds per hour. The amount of SO_2 generated when burning municipal type waste is less than the SO_2 emissions from the burning of distillate fuel oil containing 0.5 percent sulfur and the use of low sulfur fuel oil is considered one method of controlling SO_2 emissions, therefore, the installation of a flue gas desulfurization system is not warranted.

The combustion of plastics can result in the emission of acid gases, such as hydrogen chloride and hydrogen fluoride. Polyvinyl chloride (PVC), one of the many polymers, has been implicated as causing the most serious disposal problem due to the release of HCl gas when burning. This problem has long been realized resulting in other polymers being used in packaging.

Polypropylene and polystyrene, for example, produce carbon monoxide or the monomer styrene when burned. Both HCl and HF are hydrogen halides and are soluble in water. A water scrubbing system will remove approximately 75% of the HF and HCl gases. The Department does not believe the air quality impact due to these emissions justifies the cost of installing a wet scrubber system.

During combustion of municipal solid waste, NO_x is formed in high temperature zones in and around the furnace flame by oxidation of atmospheric nitrogen and nitrogen in the waste. The two primary variables that affect the formation of NO_x are the temperature and the concentration of oxygen. Techniques such as the method of fuel firing, the distribution of combustion air between overfire and underfire air, exhaust gas recirculation and decreased heat release rates have been used to reduce NO_x emissions. A few add-on control techniques such as the catalytic reduction with ammonia process and the thermal de-NO_x are still experimental, and are not considered to be demonstrated technology for the proposed project.

In their application, the applicant proposes to use the distribution of combustion air between overfire and underfire air technique to minimize NO_x emissions. The proposed NO_x emission rate is 132 pounds per hour as indicated in their air quality analysis. Annual emissions of NO_x will be 577 tons. This level of control is judged to represent BACT.

Lead emissions from the incinerator occur because this element is present in varying amounts in the solid waste. The inlet temperature of the ESP is estimated at 425-475 °F. At these temperatures the lead emissions should be in a nonvaporous state, and will be removed in the ESP along with the rest of the particulates.

The visible emissions opacity limit is based on operating data from the two existing units.

Carbon monoxide is a product of incomplete combustion where there is insufficient air. Incomplete combustion will also result in the emissions of solid carbon particulates in the form of smoke or soot and unburned and/or partially oxidized hydrocarbons. Incomplete combustion results in the loss of heat energy to the boiler. The Department agrees with the applicant that BACT is the use of state-of-the-art boiler controls to insure sufficient underfire and overfire air so that the emissions of products of incomplete combustion are minimized. The proposed CO emission rate is 66 pounds per hour. This level of control is judged to represent BACT.

The air quality impact of the proposed emissions has been analyzed. Atmospheric dispersion modeling has been completed and used in conjunction with an analysis of existing air quality to determine maximum ground-level ambient concentrations of the

pollutants subject to BACT. Based on these analyses, the department has reasonable assurance that the proposed source at the Pinellas County RRF, subject to the these BACT emission limitations, will not cause or contribute to a violation of any PSD increment or ambient air quality standard.

Details of the Analysis May be Obtained by Contacting:

Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended by:

C. H. Fancy, Deputy Bureau Chief

Date: _____

Approved:

Victoria J. Tschinkel, Secretary

Date: _____

January 27, 1984

Mr. William E. Williams
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301

RE: Pinellas County Resource Recovery Facility
PA 83-18, DOAH Case No. 83-2355

Dear Mr. Williams:

Attached please find a copy of the Department's staff analysis report for the Pinellas County Resource Recovery Facility as required by section 403.504(8), F.S.

Sincerely,

Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting Section

HSOjr/sb

cc: All parties

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Notice has been furnished in person or by U.S. Mail this 27th day of January, 1984 to the following named persons:

VAN B. COOK
SPN 72241
Chief Assistant County Attorney
315 Court Street
Clearwater, FL 33516

JOHN BOTTCHER, ESQUIRE
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

LARRY KEESEY, ESQUIRE
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, FL 32301

STEPHEN A. WALKER, ESQUIRE
SWFWMD
2379 Broad Street
Brooksville, FL 33512-9712

BONNIE DAVIS, ESQUIRE
Public Service Commission
Fletcher Building
101 East Gaines Street
Tallahassee, FL 32301-8153

HAMILTON S. OVEN, JR., P.E.
Administrator
Power Plant Siting Section
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

In Re: PINELLAS COUNTY RESOURCE RECOVERY PROJECT, Application for Power Plant Site Certification

CASE NO. 83-2355

NOTICE OF HEARING

A hearing will be held in this case in 5th Floor Assembly Room, Pinellas County Courthouse, 315 Court Street, CLEARWATER, FLORIDA at 10:00 a.m., or as soon thereafter as can be heard, on FEBRUARY 29, 1984. Continuances will be granted only by order of the Hearing Officer for good cause shown.

ISSUES: Whether the subject power plant siting application should be approved.

AUTHORITY: Section 403.501, et seq., Florida Statutes.

The parties shall arrange to have all witnesses and evidence present at the time and place of hearing. Subpoenas will be issued by the Hearing Officer upon request of the parties. All parties have the right to present oral argument and to cross-examine opposing witnesses. All parties have the right to be represented by counsel or other qualified representative, in accordance with Rule 28-5.1055, Florida Administrative Code.

January 25, 1984
(Date)

Copies furnished:

See attached page

WILLIAM E. WILLIAMS
Hearing Officer
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301
(904) 488-9675

CASE NO. 83-2355

John Bottcher, Esq.
Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting Section
Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Larry Keesey, Esq.
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, Florida 32301

Stephen A. Walker, Esq.
Southwest Florida Water
Management District
2379 Broad Street
Brooksville, Florida 33512-9712

Van B. Cook, Esq.
Chief Assistant County Attorney
315 Court Street
Clearwater, Florida 33516

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

In Re: PINELLAS COUNTY RESOURCE RECOVERY PROJECT, Application for Power Plant Site Certification	)))))	CASE NO. 83-2355

O R D E R

THIS CAUSE having been scheduled for hearing on FEBRUARY 29, 1984, it is

ORDERED:

1. Counsel for all parties shall meet together no later than ten (10) days prior to the date agreed upon for final hearing in this cause and shall:

(a) discuss the possibility of settlement;

(b) stipulate to as many facts and issues as possible;

(c) draw up the prehearing stipulation required by this Order;

(d) examine and number all exhibits and documents proposed to be introduced into evidence at the hearing;

(e) furnish opposing counsel the names and addresses of all witnesses;

(f) complete all other matters which may expedite the hearing in this case.

2. Counsel for Petitioner shall initiate arrangements for the attorneys' conferences. However, all attorneys in this cause are charged with the duty of meeting in such conferences and of complying with the schedule set forth in this Order.

3. The prehearing stipulation shall contain:

(a) a concise statement of the nature of the controversy;

(b) a brief, general statement of each party's position;

(c) a list of all exhibits, which shall be prenumbered, to be offered at the hearing, noting any objections thereto, and the grounds for each objection;

(d) a list of the names and addresses of all witnesses intended to be called at the hearing by each party. Expert witnesses shall be so designated;

(e) a concise statement of those facts which are admitted and will require no proof at the hearing, together with any reservations directed to such admission;

(f) a concise statement of those issues of law on which there is agreement;

(g) a concise statement of those issues of fact which remain to be litigated;

(h) a concise statement of those issues of law which remain for determination by the Hearing Officer;

(i) a concise statement of any disagreement as to the application of the rules of evidence;

(j) a list of all motions or other matters which require action by the Hearing Officer; and

(k) the signature of counsel for all parties.

4. The parties shall file their prehearing stipulation no later than ten (10) days prior to the date set for final hearing in this cause. Failure to comply with the requirements of this Order may result in cancellation of the hearing on the Hearing Officer's own motion.

DONE AND ORDERED this 25th day of January, 1984, at Tallahassee, Florida.

WILLIAM E. WILLIAMS
Hearing Officer
Division of Administrative Hearings
Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301
904/488-9675

FILED with the Clerk of the Division of Administrative Hearings this _____ day of January, 1984.

Copies furnished to:

See attached page

CASE NO. 83-2355

John Bottcher, Esq.
Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting Section
Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Larry Keesey, Esq.
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, Florida 32301

Stephen A. Walker, Esq.
Southwest Florida Water
Management District
2379 Broad Street
Brooksville, Florida 33512-9712

Van B. Cook, Esq.
Chief Assistant County Attorney
315 Court Street
Clearwater, Florida 33516

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

ELECTRIC POWER PLANT SITE CERTIFICATION REVIEW

FOR

PINELLAS COUNTY RESOURCE RECOVERY FACILITY

PHASE II

CASE NO. PA 83-18

Staff Analysis

Power Plant Siting Section
Bureau of Permitting
Division of Environmental Permitting
Tallahassee, Florida
32301

This report was prepared by the Power Plant Siting Section after coordination with, and receipt of oral and written review and comments from many other Departmental staff members, in particular, the following:

Division of Environmental Permitting
Bureau of Permitting
Hamilton S. Oven, Jr. (Power Plant Siting)
Karen W. Anthony (Power Plant Siting)
Susan Boyd

Southwest Florida District Office
Jim Estler
Dan Williams
Pat Lewis

Division of Environmental Programs
Bureau of Air Quality
Tom Rodgers
Ed Palagyi
Bob King

Bureau of Groundwater Protection and Waste Management
Dr. Rodney DeHan (Groundwater)
Don Kell (Groundwater)
John Reese (Solid Waste)
Dennis Wile (Noise)

Bureau of Water Analysis
Dr. Larry Olsen (Biology)

Office of General Counsel
Bill Deane

Also participating in this review were personnel of the Resource Recovery Council.

Pursuant to Chapter 403, Part II, Florida Statutes, this report constitutes the Department of Environmental Regulation's required analysis and recommended Conditions of Certification for the Pinellas County Resource Recovery Facility, PA 83-18. This report and attached Conditions of Certification are hereby approved.

Jan 27, 1984
Date

Terry Cole for
Victoria J. Tschinkel
Secretary

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State of Florida Department of Environmental Regulation
Pinellas County - Resource Recovery Facility
Electric Power Plant Site Certification Review
Case No. PA 83-18

I. INTRODUCTION

Pursuant to Section 403.505, Florida Statutes, Pinellas County applied in October 1978 for certification of a steam electric generating, resource recovery facility at a site about one mile northeast of the town of Pinellas Park on the county's existing Bridgeway Acres Phase I landfill tract. The site was certified by the Governor and Cabinet on July 20, 1979. After filing an incomplete application in July 1983, Pinellas County submitted a new, complete application for a third boiler at the previously certified site on September 6, 1983.

The proposed project will be a third resource recovery facility boiler which could use up to 1050 tons per day of refuse as fuel. The proposed boiler expansion will increase the total solid waste processing capacity of the plant to 3150 tons per day. The steam from the new boiler will be sent to a turbine generator increasing the gross capacity of the plant by 29 MW (gross) from 50.6 MW to 79 MW (gross). Pinellas County will contract with UOP, Inc., to design, construct, and operate the plant for 20 years. Generated electricity will be transmitted to the Florida Power Corporation (FPC) Gandy Substation via the existing transmission line for distribution over the FPC transmission system. The net generating capacity of the expanded plant should be approximately 72 MW.

The primary purpose of the facility is to dispose of solid waste. Ferrous metals, aluminum, and electricity will be recovered resources. Non-processible waste (including non-combustibles and demolition debris) and unusable residue will be buried at the associated sanitary landfill. The sale of electricity, as well as other processed and recovered resources,

will help offset the overall cost of owning and operating the facility.

II. DESCRIPTION OF SITE AND FACILITIES

A. Site

The existing Resource Recovery Plant buildings are located on approximately 20 acres within the County's existing Bridgeway Acres Phase I landfill tract. The Phase I landfill site is situated in the northernmost 80 acres of a total of approximately 225 acres located just south of 114th Avenue North and west of 28th Street North. Areas of the plant site not previously disturbed by landfilling activities were occupied either by pine flatwoods or wet weather ponds. Original topography was fairly level, with the elevation ranging from 5 to 10 feet above sea level across the tract. In undeveloped areas of the site, an overburden of sand, marl and clay lies over solution-riddled limestone and dolomite which forms the Floridan aquifer. The overburden forms a subsurface reservoir called the shallow aquifer. The site now contains a 20 acre stormwater retention pond, the resource recovery facility, a materials storage building, solid waste administration building, scale house, aeration/oxidation ponds and a Class I landfill. A Class I landfill is defined by 17-7.05(1)(a) as "those which receive solid waste, and which receive a monthly average of 20 tons or more of solid waste per day as weighed by scale if available, or 50 cubic yards or more of solid waste per day as measured in place after covering. Such sites shall receive an initial cover at the end of each working day. If such a site is limited to the receipt of only trash or yard trash, it shall be classified as a Class III landfill".

The proposed facilities will consist of a 29 MW steam electric generating turbine; one 1050 tons per day solid waste fired boiler; an additional cell for the mechanical draft cooling tower utilizing treated sewage effluent; a new 161 floor flue gas stack and an electrostatic precipitator. Minimal other changes to the existing facility will be made to connect the third unit to

the existing facility.

An existing 230 KV transmission line will be used to transmit the electricity from the Resource Recovery Facility (RRF).

III. NEED FOR THE FACILITY/POWER

The primary purpose for the proposed facility is to dispose of the county's refuse and trash. The escalating cost of land for landfilling operations, limitations on land availability, and environmental concerns such as leaching of contaminants from putrescible materials into the already stressed groundwater system were all factors in determining the need for a better solid waste handling system. The proposed resource recovery facility helps allow the retirement of the other county landfills, the conservation of land by reduction of the amount needed for future landfilling, a reduction of pollution of groundwater, a reduction of flies, odors, rodents and birds associated with current landfills.

The sale of recovered waste materials and the sale of electricity will help offset the cost of the system. Over the life of the plant, the new facility is estimated to save several million dollars over the cost of landfilling for a similar length of time. The new unit will allow for a higher available capacity for solid waste reduction and electrical generation during times of maintenance of other unit shutdowns. Also, the recovery of aluminum, ferrous, and other non-ferrous materials will help reduce overall national energy consumption by deleting some of the energy costs entailed in mining and processing of such materials. Resource recovery is becoming more necessary because of the growing scarcity of many of the materials which can be saved by the recycling process.

Electric system reliability will be increased by the addition of a small generating facility because it offsets some of the problems associated with a large unit when that unit goes down. The cost to the consumer per unit of electricity may be less than a similarly sized coal-fired unit, because it does not require certain air pollution control equipment such as SO_2 scrubbers

necessary for a coal-fired plant. Production of resource conservative electric power which does not depend on oil is in conformance with state and federal energy policy. It is also in conformance with the legislative intent of the Florida Electrical Power Plant Siting Act to provide abundant, low cost electrical energy that is of minimum adverse impact on human health and the environment and with the legislative intent of the Florida Resource Recovery and Management Act (Ch. 403, Part IV, Florida Statutes).

The Florida Public Service Commission has determined that the facility is needed. Their conclusions are contained in a latter section of this report.

IV. ZONING AND LAND USE PLANNING

Zoning for the Resource Recovery Facility building area and also the associated landfill was originally light industry and manufacturing. The Resource Recovery building was in the unincorporated area of Pinellas County, under the county's M-1, Light Manufacturing and Industry District. Permitted uses in this zone include public service facilities such as "public utility, electrical . . . water or sewerage . . . right-of-ways", "public . . utility sub-stations . . .", and "landfills and excavations".

The major landfill/stormwater retention areas of the site are in the incorporated city limits of Pinellas Park. The zoning designation there was also M-1 (Light Industrial and Warehousing District) at the time of certification of the first units, but at the time when Pinellas County submitted the Resource Recovery Facility application, the specifications for this M-1 zoning did not parallel the County's zoning language in reference to landfilling. Pinellas Park's M-1 category at that time did not specifically allow landfilling. Uses which might be considered similar to landfills, such as "junk yards, scrap and salvage yards", as well as ". .uses . . . not of a nature specifically or provisionally permitted herein . . ." were prohibited.

Pursuant to the Land Use and Zoning hearing held on January 25, 1979, the Hearing Officer recommended to the Governor and

Cabinet that the Applicant should make the necessary application for rezoning of the landfill/stormwater retention area before any further action be taken on the complete application. On March 20, 1979, the Governor and Cabinet adopted that recommendation and remanded the case back to the Hearing Officer for further hearing on the matter. Pinellas County has since sought with the co-operation of the City of Pinellas Park to amend the M-1 zoning category to allow publicly operated landfills.

During the Land Use and Zoning Hearing, it was discovered that one small portion of the landfill area of the site was zoned Commercial (C-2), which would not permit landfilling. The Site Certification application was amended to exclude this parcel from the site.

The effective 1974 Land Use Plan for Pinellas County showed the entire site to be within the manufacturing designation and has been determined to be consistent.

Present land uses which characterize the immediate area surrounding the site include light industry/manufacturing, and experimental sod farm, and former and existing landfills.

The Florida Power Corporation transmission line route and I-275 form eastward and westward borders for the area which may effect future development patterns. The Comprehensive Land Use Plan of Pinellas County indicated that the desired land use for this particular area would be primarily industrial. Areas abutting the site to the south and southwest were indicated as low and medium density residential areas. However, it has been stated by the applicant that the medium density tract can be expected to be at least partially rezoned for industrial purposes. The Department has also noted that a tract of land (see Figure 1) between the western boundary of the site and the Florida Power Corporation right-of-way, zoned for Low Density Residential Use, is still vacant. In order to avoid future citizen complaints due to noise, dust, aesthetics or health problems, the Department of Environmental Regulation recommended that all of the tract be rezoned as well, to a use that precludes residential development.

The 1983 application for certification of the new boiler

showed changes in zoning on Figures 2-2, 2-3, and 2-4 incorporated herein and indicated the following responses to the department's recommendations:

"The COC for the original application recommended actions on three parcels of land on and adjacent to the certified site. These issues were resolved as follows:

1. The 5 acre parcel zoned C-2 and located south of the plant and west of 28th Street was omitted from the certified site description.
2. The majority of the 160 acre portion of the certified site which was zoned M-1 was rezoned, by special ordinance, to IH, heavy industrial. This designation permits, among other things, solid waste landfills. A small portion of this tract, located in the southwest corner and nearest the residential area, was rezoned as P, public. This designation allows for the disposal of boiler residue only (see Figure 2-4).
3. Attempts by Pinellas County to implement the recommendations of the Department concerning zoning and development of the tract of land between the western boundary of the site and the Florida Power Company (FPC) right-of-way were less than successful. Neither the owner, U.S. Home, Inc., nor the City of Pinellas Park were willing to rezone the tract; however, they both agreed to provide a buffer zone by constructing a large lake. This effort has the effect of insuring that no residence is located closer than approximately one-half mile from the Plant."

Currently, some of this future industrial area is utilized for agriculture or as minor commercial tracts, or is "open space" and pine flatwoods.

Land uses further from the site include the St. Petersburg/Clearwater Airport, located approximately 2 1/2 miles northwest of the site; an abandoned shell quarry to the northeast; a storm drainage/environmental education center some two miles south of the proposed facility; and the cities of Pinellas Park,

Kenneth City, and St. Petersburg to the south; Clearwater and Largo to the northwest. Old Tampa Bay is approximately three miles away to the north and east of the site.

V. AGENCY COMMENTS

Copies of the application were furnished in July and September 1983 to the Department of Administration, Division of State Planning, and to the Florida Public Service Commission as required by Section 403.507, F.S. Shortly thereafter, copies of the application were furnished to the following agencies for their review and comment:

1. Florida Department of Natural Resources
2. Florida Game and Fresh Water Fish Commission
3. Florida Department of Transportation
4. Florida Department of Commerce
5. Florida Department of Community Affairs
6. Southwest Florida Water Management District
7. Florida Department of Health and Rehabilitative Services
8. Florida Department of Agriculture and Consumer Services
9. Tampa Bay Regional Planning Council
10. St. Petersburg Pollution Control
11. Pinellas County Pollution Control

A. Public Service Commission

The Florida Public Service Commission has reviewed the resource recovery facility application and furnished comments to the Department on October 17, 1983. PSC Order No. 12611 of Docket 830 417-EU was adopted by the PSC as their Final Report as indicated by their Notice of Proposed Agency Action October 14, 1983.

The Final Report states as follows:

"Under the Florida Electrical Power Plant Siting Act, Section 403.501, Florida Statutes, the Commission is charged with the responsibility of determining whether construction of a proposed electrical generation facility is necessary to meet the present or expected need for electricity in all or part of Florida. Under the Act, the Department of Environmental Regulation must determine whether the proposed plant will comply with all relevant environmental standards and whether the proposed site for the plant is suitable for that use. Weighing all of these determinations, the Governor and Cabinet, sitting as the Power Plant Siting Board, ultimately determine whether approval will be granted for construction of the proposed plant.

"Certification under the Act must be obtained for the construction of any generating facility greater than 50 MW or for the expansion of any existing electrical power plant. Pinellas County currently owns an existing solid waste-fired power plant containing a single 50.9 - megawatt (gross) turbine generator and two incinerator/boilers located near Pinellas Park in Pinellas County, Florida, and has an existing Power Plant Site Certification for the facility. Pinellas County proposes to construct and operate an additional incinerator/boiler, and a single 29-megawatt (gross) turbine generator facility at the same site.

The proposed incinerator/boiler will be similar to the two incinerator/boilers currently owned by the County and will have the capacity to burn up to 1050 tons per day of 5000 BTU per pound solid waste. This is a small power production facility within the meaning of PURPA and Rules 25-17.87, Florida Administrative Code.

"The steam generated by the proposed incinerator/boiler plant will be used to drive a single 29-megawatt (gross) turbine generator which will produce electricity that will be sold to Florida Power Corporation. The projected in-service date for the unit is July 1986, with construction scheduled to begin in the summer of 1984. The existing facility is selling an average of 38-40 MW a year to Florida Power Corporation. With increasing fuel supply and capacity expansion, the facility will ultimately have about 60 MW available for sale to Florida Power Corporation in mid-1990's. By a petition filed on August 29, 1983, Pinellas County seeks an affirmative determination of need for the 29 MW generating plant.

"While the Power Plant Siting Act requires the Commission to determine whether a need exists for the proposed generating facility, the purpose of the Commission's need determination is to protect electric utility ratepayers from unnecessary expenditures. The statute lists four criteria the Commission must consider in determining need:

1) the need for electrical system reliability and integrity;
2) the need for adequate electricity at a reasonable cost;
3) whether the proposed plant is the most cost effective alternative available; and
4) conservation measures taken or reasonably available that might mitigate the need for a new plant (sec. 403.519, F.S.)

"Congress and the Florida Legislature have determined that cogeneration and small power production should be encouraged on the premise that they constitute alternate sources of power that either displace production of fossil fuel electricity or use fossil fuels more efficiently. Moreover, the proliferation of cogeneration and small power production facilities may obviate the need for construction of additional generating facilities by electric utilities. Therefore, in the present context, we find that the County's proposed small power production facility will increase electrical system reliability and integrity and will maintain the supply of adequate electricity at a reasonable cost while reducing our dependence on fossil fuel. When viewed as an alternative to construction of additional generating facilities by electric utilities, and considering the permissible level of payments to small power producers outlined in Rules 25-17.80 through 25-17.87, Fla. Admin. Code, the proposed facility is the most cost effective alternative available. Finally, construction of the plant is a conservation measure which we have encouraged precisely because it may mitigate the need for additional construction by electric utilities. Therefore, the relief sought in this petition, an affirmative determination of need, will be and the same is hereby granted. It is, therefore,

"ORDERED by the Florida Public Service Commission that this Order constitute the final report required by Section 403.507(1)(b), Florida Statutes, the report concluding that a need exists, within the meaning of Section 403, Florida Statutes, for the construction of the 29 MW generating facility proposed by Pinellas County, Florida. It is further

"ORDERED that a copy of this Order be furnished to the Department of Environmental Regulation, as required by Section 403.507(1)(b), Florida Statutes. It is further

"ORDERED that any person adversely affected by the action proposed herein may file a petition for a formal proceeding, as provided in Rule 25-22.29, within 21 days of the date of this order, November 4, 1983, in the form provided by Rule 25-22.36(7)(a) and (f). It is further

"ORDERED that in the absence of such a petition, this Order shall become effective and final as provided by Rule 25-22.29(6), as stated in a subsequent order.

"By Order of the Florida Public Service Commission, this 14th day of OCTOBER 1983."

On November 7, 1983 the Public Service Commission sent the following letter:

"The attached orders constitute the Commission's final reports, as required by Section 403.507(1)(b) of the Power Plant Siting Act, on the applications of Pinellas and Hillsborough Counties for power plant certification.

"As the orders indicate, the matter was handled in the form of a Proposed Agency Action. No person requested a hearing within the required time; therefore, the Commission's finding that a need exists for the proposed plants has become final.

"By the Commission:

"By Order No. 12611, this Commission proposed to take certain action, subject to a Petition for Formal Proceeding as provided in Rule 25-22.29, Florida Administrative Code. No response has been filed to the order and it has become effective. It is, therefore,

"ORDERED by the Florida Public Service Commission that this Order constitute the final report required by Section 403.507(1)(b), Florida Statutes, the report concluding that a need exists, within the meaning of Section 403, Florida Statutes, for the construction of the 29 MW generating facility proposed by Pinellas County, Florida. It is further

"ORDERED that a copy of this Order be furnished to the Department of Environmental Regulation, as required by Section 403.507(1)(b), Florida Statutes. It is further

"ORDERED that Order No. 12611 be and the same is hereby determined to be effective and final on November 4, 1983, as provided in Rule 25-22.29(6), Florida Administrative Code. It is further

"ORDERED that this docket be closed.

"By ORDER of the Florida Public Service Commission, this day 14th of November, 1983."

B. Department of Community Affairs

On November 17, 1983, the following letter was received from the Department of Community Affairs:

"Attached is the Department of Community Affairs' report on Pinellas County's Resource Recovery Facility (Phase II) power plant site certification application for an additional 29 megawatt generating capacity. Pursuant to Section 403.507, Florida Statutes, the report assesses the compatibility of the proposed electric power plant expansion with the State Comprehensive Plan.

"After reviewing the application against the stated goals, objectives and policies of the State Comprehensive Plan, we find that the proposed resource recovery facility expansion is compatible with the State Comprehensive Plan."

The entire DCA report is attached as Appendix B of this report. The conclusion of that report states as follows:

"In conclusion, we find that the proposed facility would be consistent with the following element policies:

"Energy Nos. 2 and 4
Land Development Nos. 18 and 63
Utilities Nos. 8, 17, 29, 38, 46 and 57

"The proposed facility would be inconsistent with the following element objectives and policies:

"Health Objectives E, L
Housing and Community Development No. 65
Utilities No. 55

"The facility expansion would be consistent with a portion of Land Development Element Policy No. 23 while being inconsistent with another portion of the same policy.

"In making our overall judgment on compatibility, we place particular emphasis on these pertinent facts:

1. "This is an expansion of an existing facility. Most of its impacts are already known and have been mitigated. According to the Phase II site certification application, no additional facility expansion (i.e., no more boilers) will occur at this site in the future.
2. "In 1979 the DCA found Phase I of the Pinellas County Resource Recovery Facility to be consistent with the State Comprehensive Plan. Three years of successful operation of that facility have affirmed that earlier conclusion.
3. "We do not find the incompatible land uses at the southwest boundary of the site (landfill and residential uses) to be consistent with the directives of the SCP. However, as explained in the discussion under Health Element Objective L, there are several mitigating circumstances that reduce the magnitude of this impact.

"In our opinion the increased negative land use (and other) impacts generated by the proposed facility expansion are outweighed by the benefits the expansion would provide in (1) reducing the amount of landfill area needed, (2) recovering metals, and (3) producing electrical power.

"The Florida Department of Community Affairs therefore finds the proposed facility to be compatible with the State Comprehensive Plan."

C. Southwest Florida Water Management District

In a report submitted on September 22, 1983, the Southwest Florida Water Management District gave its assessment of the anticipated impact of the facility on the water resources of their district. This report states that:

> "The Southwest Florida Water Management District (SWFWMD) Staff has reviewed the above referenced August 1983 application. As stated in Section 2.2, 'Changes in Regional Demography, Land and Water Use', and Section 2.5.2 'Water Withdrawals', no onsite water withdrawals are required or proposed, and the county has acquired a guaranteed supply of non-potable water from the City of St. Petersburg's reclaimed water supply and potable water from the Pinellas County Water System. Therefore, the project's water use will not require District Consumptive Use Permits.
>
> "The county is using reclaimed water for its industrial non-potable needs, which reduces the demand for potable water and promotes water conservation. We encourage the use of reclaimed water for this and other similar projects."

D. Department of Health and Rehabilitative Services

On September 27, 1983, the Department of Health and Rehabilitative Services offered the following comments and recommendations on the resource recovery facility application:

> "I have had staff in program areas of environmental health, radiological health and contaminated waste disposal carefully review the referenced application. It is the consensus opinion of these professionals that the application is appropriate and reflects a primary need in Pinellas county.
>
> "Our review of records through conferences with Pinellas county health officials also indicates operation of the present unit is very good and that planned waste disposal meets current standards. The public health impacts should be positive and the Department recommends approval of the application."

E. Department of State, Division of Archives, History, and Records Management

In a letter dated August 4, 1983, the Bureau of Historic Preservation submitted the following comments:

> "As per the provisions of Chapter 17-17, Florida Administrative Code ('Rules of State of Florida Department of Environmental Regulation, Electrical Power Plant Siting'), we have reviewed the above referenced project for potential impact to significant archaeological and historical sites and properties.
>
> "A review of the Florida Master Site File indicates that no archaeological or historical sites are recorded for the project area. Furthermore, because of the location of the project, it is considered highly unlikely that any significant, unrecorded sites exist in the vicinity. Therefore, it is the opinion of this office that the proposed project will have no effect on any sites of national, state or local significance."

F. Department of Natural Resources

On August 23, 1983, the Department of Natural Resources submitted a statement concerning the proposed Resource Recovery Facility that the staff had " . . . reviewed the referenced Application and finds no problem with the Application. Accordingly, the staff submits a 'no adverse comments' on this Pinellas County Application."

G. Game and Fresh Water Fish Commission

On August 10, 1983, the Florida Game and Fresh Water Fish Commission submitted the following comments:

"The Office of Environmental Services of the Florida Game and Fresh Water Fish Commission has reviewed the referenced power plant site certification application regarding impacts on fish and wildlife resources. Together with the original application for site certification for this facility, the information contained in the referenced document appears to be sufficient for us to review. Moreover, the impacts of the proposed project of fish and wildlife resources are expected to be minimal, and we anticipate having no further comments on this project unless the project is substantially modified. If such a modification is made, please forward that information to us for review."

H. Department of Agriculture and Consumer Services

On August 2, 1983, the Division of Forestry of the DACS submitted the following comments:

"We have reviewed this application for the Department since the land use impacts are forestry related rather than agricultural and have no particular problems with the proposal. The trade-off of 30 acres of pine flatwoods for the foreseen reduction in use of land for sanitary landfills seems a good one to us."

I. Department of Commerce

On August 11, 1983, the Department of Commerce submitted the following comments:

"This project is consistent with the goals and objectives of the Florida Department of Commerce. Using waste material as fuel eliminates the need for burying it in a landfill, thereby freeing that land for better uses. This is particularly important in Pinellas County since it is the most densely populated area in Florida.

"In addition to having direct economic benefits, this plant will be a very visible high technology facility which will contribute to Pinellas County's image of a progressive area. This will assist us in selling Pinellas as a plant site in the extremely competitive endeavor of recruiting high technology industries."

J. The following comments were received from the Pinellas County Department of Environmental Management on November 7:

"The Pinellas County, Division of Air Quality, has reviewed the above noted application with regard to air quality impact. The revised application was received September 15, 1983 and the missing supplements to the appendices were received September 30, 1983.

"The proposed third unit, a mass-burn Martin combustion system, is similar to the existing units. The capacity, heat input and design/operational characteristics are all similar to the other two units. The proposed/estimated air emissions and the expected ambient air quality impacts contained in the BACT and Air Quality Analysis sections of the application are addressed as follows:

1. "The BACT determination for particulate emissions proposed by the applicant is 0.03 gr/dscf, corrected to 12% CO_2. The NSPS TSP emissions limits established by Florida and EPA for incinerators of this size and type are 0.08 gr/dscf corrected to 50% EA. Previous EPA and FDER BACT determinations for similar units (the Dade Co. RRF and the existing two units of Pinellas County RRF) established the NSPS limits as BACT for those units. The proposed controls (four field ESP) will surpass these requirements for particulate emissions as well as aiding in the increased control of lead, beryllium and particulate mercury. Based upon the available information included in the application the modeling analysis does not appear to indicate a problem with TSP impacts of the project even

with the downwash scenario of the ISCST model. The existing TSP monitoring facilities should be adequate for this project.

2. "A BACT determination and emissions limitations for SO_2 were not proposed by the applicant. As stated in the application, use of low sulfur fuel is considered to meet BACT for SO_2 emissions from municipal incinerators. The expected sulfur content is less than .2%. The expected emission rate of 1.9 lb/Ton MSW (83 lb/hr) is well below the limit imposed on electric utility steam generating units classified as Resource Recovery Facilities in 40 CFR, Subpart Da, Section 60.43a(d) which allows 1.2 lb/MMBTU heat input (or approximate 493 lb/hr for this unit). Therefore, the emission rate of 1.2 lb/MMBTU of heat input should be the applicable limiting standard. Again it is expected that the existing monitoring data systems should be sufficient for this project in order to monitor compliance and evaluate ambient impacts. It may, however, be prudent to also require SO_2 stack sampling analysis, during the annual compliance testing which will be required for particulates, as a means of certifying compliance with the standard imposed. Modeling appears to indicate no significant problems associated with the impacts of the project.

3. "The NO_x and CO emissions are stated to be controlled by 'state-of-the-art' boiler design and operation. This is requested as BACT by the applicant. Again, no expressed emission limitation is proposed for these criteria pollutants. Neither is it discussed how the critical elements for proper combustion parameters will be monitored to 'control' the emissions of these pollutants. If this project were compared to a solid fuel fired steam generator as above (40 CFR Subpart Da) the allowed emission rate would be 0.6 lb NO_x/MMBTU heat input, and/or 65% reduction of the potential combustion concentration. This would yield an allowable rate of 246 lb/hr for this unit (at a firing rate of 411 MMBTU/hr heat input). The expected emission rate is 132 lb/hr. While this is only slightly more than half of an allowable rate the aspect of achieving 65% reduction of the potential concentration should be addressed via detailed analysis if feasible. Continuous in-stack monitoring may be applied if deemed necessary for compliance assurance purposes. The modeled expected impacts for NO_x and CO do not appear to indicate a significant problem. The Certification document and/or BACT determination should prescribe the specific emissions limiting standard of 0.6 lb NO_x/MMBTU heat input.

4. "The control of particulate lead, beryllium and mercury are effected by the ESP. The expected levels of mercury and beryllium emissions are well below the De Minimus levels established under PSD. However, lead exceeds the De Minimus impact level by .15 ug/m^3. The modeling indicates that the likelihood of an exceedance is only slight. It is expected that the existing ambient monitoring analysis will provide adequate compliance assurance.
5. "The notably high expected emissions of chlorides is not addressed in the analysis of impacts. Comment should be provided regarding possible control and limiting emissions. It is the largest in quantity pollutant being emitted. If burner design and operation can be utilized as the "control" for "unburned" plastics and other chloride sources then it should be discussed in the proposal.
6. "While fluoride emissions exceed the PSD De Minimus levels the expected ambient air impact as well as the impact on soils and vegetation are considered slight. The monitoring and/or stack analysis for fluorides is not considered necessary for this source at this time.
7. "The expected level of hydrocarbon emissions is 58 T/yr. Combined with hydrocarbon emissions from the existing two units this facility is a major source. Considering that Pinellas County is still technically an ozone non-attainment area, an emission limitation should be established for

the facility. Additional controls are impractical but a limiting standard could be set. The means of verifying compliance would have to be decided upon; i.e. whether stack analysis or continuous monitoring are feasible.

"It should be noted that the comments above regarding modeling aspects of the application are solely based on the limited information provided for review. The detailed study of the modeling should be addressed by BAQM personnel.

"The limited resources and capabilities of this agency prohibit a more detailed analysis of this project. As the local agency it was felt that some comment should be provided on the project regardless of our affiliation with the project applicant. If there are any questions regarding this review or if further comment is required please contact this office at SUNCOM 570-4761."

VI. DEPARTMENT OF ENVIRONMENTAL REGULATION EVALUATIONS

Florida's Electric Power Plant Siting Act (PPSA), specifically subsections 403.507(2)(a-h), F.S., and Ch. 17-17, FAC, identify minimum criteria which must be studied by the Department in its review of a steam electric facility. The review process is concerned with many of the same factors as an environmental impact statement. This includes some factors more socio-economic in nature than environmental, but which may have associated environmental impacts. An example of this would be land use plans. Proper land use planning can help steer development away from environmentally sensitive areas, and also into areas more suited for certain types of development as well.

In return, facility-specific environmental impacts, particularly ones adverse to human health, welfare and safety, may preclude site development in areas thought to be appropriate from land use planning perspectives. An example of this would relate to air pollution. If emissions cannot be controlled within the limits of the new source emission standards, or if the ambient air quality standards in the area reasonably considered to be affected by the facility cannot be achieved, then further review is unwarranted and the site may be considered unacceptable. The concerns with water are adequacy of supply and chemical and biological effects of discharges. The long-term effects of noise and the disposal of solid wastes are additional aspects to be considered.

With these factors in mind, the Power Plant Siting Act criteria and others have been evaluated in the following sections. PPSA criteria include: accessibility to transmission corridors; proximity to transportation systems; cooling system requirements;

environmental impacts; soil and foundation conditions; impact on water supplies; impact on terrestrial and aquatic plant and animal life; impact on water and air quality; site specific studies; impact on surrounding land uses; impact on public lands and submerged lands; impact on archaeological sites and historic preservation area; and construction and operational safeguards.

A. Accessibility to Transmission

Florida Power Corporation (FPC) currently operates the "Gandy Substation", about 1¼ miles southeast of the proposed resource recovery facility. A switchyard was constructed on the site and a 230 KV feeder line was constructed from the switchyard to the substation during Phase I of the project. The new boiler and turbine will use the existing facilities.

B. Fuel

The fuel for the electrical generating unit is solid waste collected from within Pinellas County. The new mass-fired boiler capable of burning 1050 tons per day has a guaranteed total capacity of 7350 tons per week or 383,250 tons per year.

The availability of energy, and of the fuels to supply that energy, is of grave concern to the State and the Nation. The choice of processed refuse as the primary fuel source has three benefits. (1) It reduces the amount of putrescible material deposited in landfills, which reduces potential water pollution from water leaching through putrescible organic material placed in a landfill. (2) Generation of electricity by the burning of refuse at this new facility is anticipated to reduce the amount of imported fuel oil by over 1,370,000 barrels per year. (3) The use of solid

waste as fuel to generate electricity conforms to state and federal energy and resource recovery policies.

C. Proximity to, and Impacts on Transportation Systems

The site for the resource recovery facility is located approximately one-half mile west of Interstate 275, two miles east of U.S. 19, approximately two and one-half miles at the nearest point to Tampa Bay. The St. Petersburg/Clearwater Airport is located approximately two and one-half miles northwest of the proposed facility. The Seaboard Coastline Railroad line at its nearest point is approximately two and one-half miles from the site.

More immediate transportation routes are 28th St. North, bounding the site on the east, 114th Avenue on the north, and 110th Avenue on the south of the facility buildings.

There will be some impact on the roads surrounding the site due to increased utilization by construction and operation vehicles. It is expected that the existing roads will be maintained by the County. Neither aquatic nor rail transportation systems are expected to be utilized nor subsequently impacted as a result of the facility.

Since the wastes to be processed at the facility are normally transported to the landfills, there is expected to be little difference in the types of transportation modes necessary as a result of the facility. Distances traveled may be increased, and thus fuel consumption with its associated air pollution impact and energy penalties but the resultant environmental and socio-economic impacts from increases in transportation are expected to be less than those of county-wide continuance of landfilling.

Operation of the resource recovery facility is expected to diminish interference with airport operations to a degree; it should reduce the garbage-feeding areas for seagull populations in the airport vicinity. Landfills have been recognized as contributing to aviation hazards because of scavenger bird-airplane collisions. Landfilling of only residue and large non-putrescible items and incineration of garbage should reduce the number of birds congregating in the area.

D. Cooling System Requirements

The new refuse fired steam generating boiler will be cooled by adding an additional cell to the wet mechanical draft, cross-flow, cooling tower. The design rate for heat dissipation for the new facility is 675 million BTU/hr of cooling. Flow rate through the cooling tower of treated sewage effluent will be increased from 37,500 gpm to 50,100 gpm with makeup effluent being added at the maximum rate of 817 gpm. Evaporation rate from the tower is expected to be a maximum of 1383 gpm, drift loss, a maximum of 62 gpm. Maximum cooling tower blowdown rate will be 306 gpm.

Consumptive use, i.e., discharge to the atmosphere, of the treated sewage effluent will be 1445 gpm maximum, or approximately 2.08 million gallons per day. Excess stormwater collected on site may also be used as cooling water. The primary source of cooling water will be from the City of Largo's sewage treatment plant, although the current supply now comes from the St. Petersburg Northeast Advanced Wastewater Treatment Plant.

E. Environmental Considerations and Impacts

E.1. Soil and Foundation Conditions

The facility site is covered by approximately eighteen feet of sand which overlays a marl/clay zone. The surficial soils are nearly level and poorly drained, consisting primarily of sand, sandy loam, and shell. Depth to bedrock varies from 33 to 55 feet below the land surface.

The deep limestone bedrock under the site is riddled with solution channels but the overburden should be of sufficient thickness to forestall any related foundational problems. Dewatering of the site will be necessary during construction, but since facility construction and operational water needs will not be supplied by on-site wells, a major drawdown effect which might lead to ground subsidence or sinkholes is not expected. Site foundation construction and elevation will alter the overburden characteristics to make it suitable for structural support of the facility. No significant problems were encountered during construction of the existing facilities. Consequently, none are expected during the construction of the new boiler.

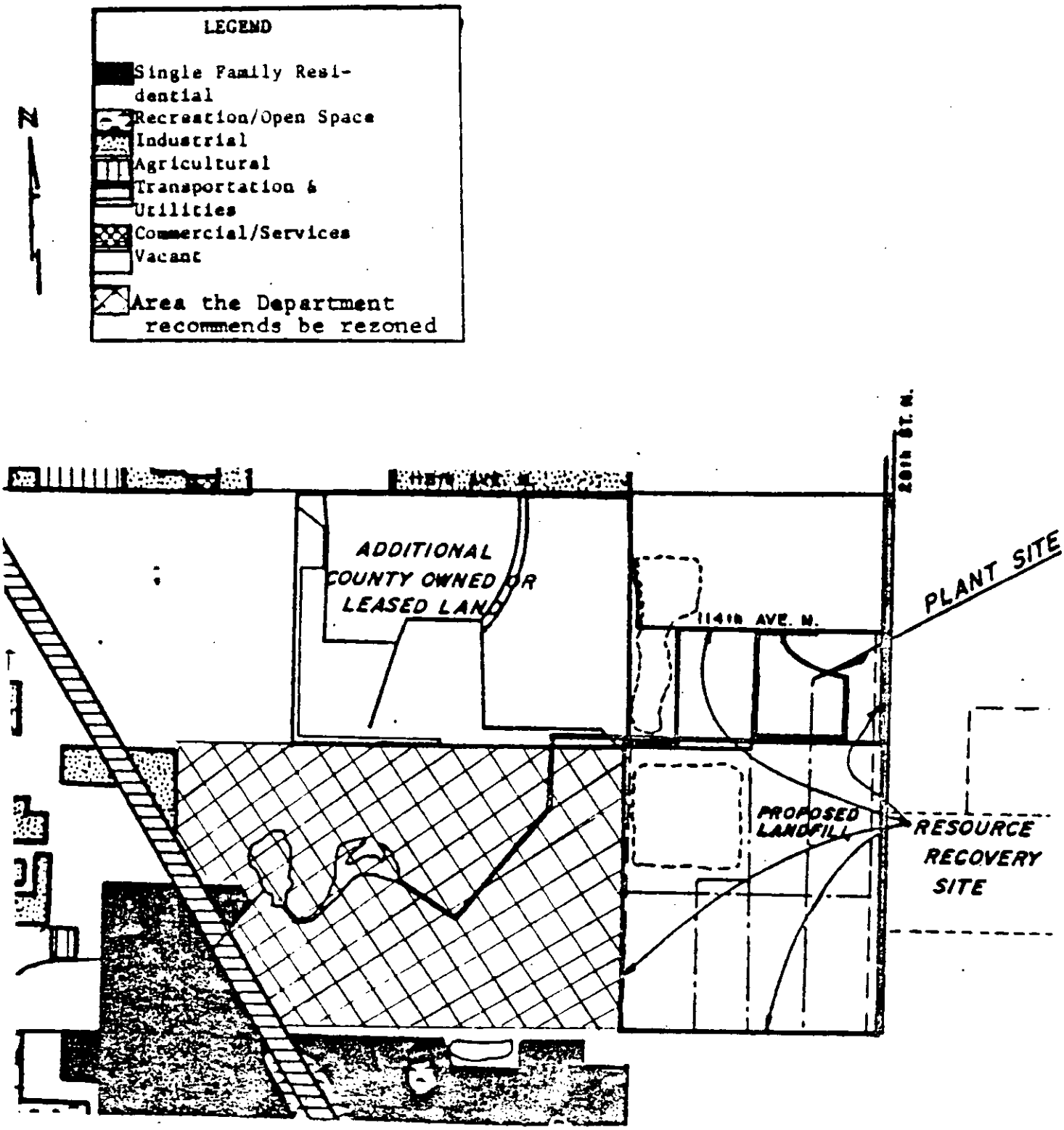
A detailed hydrogeological study will be completed to determine the feasibility of using a bentonite slurry curtain wall around the site to contain any contaminated leachate on site.

E.2. Availability of Water

Potable water for the site is obtained from the Pinellas Park water system. During construction, total water needs are estimated to be 90 million gallons. Operational needs will be at an average rate of 167,000 gpd.

Figure 1

AREA RECOMMENDED FOR REZONING
and
Local Land Use



Cooling tower water and makeup is now primarily obtained from the City of St. Petersburg tertiary treatment effluent system with sewage effluent from the City of Largo considered to be of better quality as the supply of the future. As an additional source of supply, the sewage effluent will be supplemented with stormwater runoff from an on-site retention pond.

E.3. Site Modifications

Site modifications will include construction of the third boiler north of the existing boilers, an electrostatic precipitator, 161 ft. stack, an additional cell to the cooling tower system, a second turbine generator and associated equipment. All new additions will be adjacent to the existing facilities on previously cleared land.

E.4. Plant and Animal Communities/Rare or Endangered Species

The site before construction of Phase I was flatwoods, wet weather ponds and ditches. The site is bordered by an existing landfill, a sod farm, and other types of uses which would tend to discourage the presence of animals unable to adapt to a stressed environment. No rare or endangered species of plants or animals were detected during construction. No adverse impacts on rare or endangered species of animals or vegetation are expected due to construction on the previously disturbed site.

E.5. Wastewater/Water Quality Impacts

a. Plant Waters -

The following volumes of water are expected to be produced by the resource recovery facility during normal daily operation:

1.	Cooling Tower Blowdown	279 gpm
2.	Boiler Blowdown	32 gpm
3.	Cooling Tower Evaporation and Drift	1311 gpm
4.	Boiler Demineralization Backflush Water	45 gpm
5.	Sanitary Wastes	50 gpm

Maximum cooling tower blowdown rate will be 306 gpm, and boiler blowdown at maximum will be 33 gpm; boiler demineralization backflush water (53 gpm Max) will be combined with boiler and cooling tower blowdown to form a process stream of 392 gpm maximum. Approximately 45 gpm of the process stream will be utilized for boiler grate residue quenching. The remaining process stream will be combined with the sanitary flow discharge. The plant effluents will be discharged to Pinellas Park's South Cross Bayou sewage treatment plant.

b. Surface Water -

Surface water impacts would largely arise from stormwater runoff from site alteration, construction of buildings, parking lots, and other impermeable surfaces. Also, foundation soils for the plant will probably be less permeable than naturally-occurring soils, thereby increasing runoff.

Perimeter ditches, a central holding pond, and associated treatment facilities will be used to collect, contain, and treat runoff originating on the site. Runoff will consist of stormwater originating from the plant site and the landfill area. This collection and treatment system has been constructed to be of sufficient size to prevent any stormwater discharge from the site except during periods of extremely heavy rainfall.

Stormwater runoff will be diverted to a twenty-two acre holding pond via perimeter drainage ditches and interception canals. If the water levels become too high, this runoff may be pumped from the holding pond to the leachate/stormwater treatment system. Any excess stormwater

will then be treated similar to leachate, or can be used for cooling tower makeup. Under normal conditions, the stormwater storage lagoon will essentially function as a percolation/evaporation pond. If a bentonite slurry wall is constructed around the site, evaporation via the cooling tower may become mandatory to prevent discharges from the site.

c. Groundwater -

Review of chemical characteristics of the shallow aquifer water, as supplied by the applicant from USGS monitor wells in the area, indicates that groundwater in this vicinity is Class G-II (as defined by section 17-3.403, FAC, Water Quality Standards). Movement of shallow aquifer groundwater in the area was indicated to be generally northeasterly towards Old Tampa Bay, at a rate of one to ten feet per year. The area of the site is underlain by a clay/marl zone at a depth of about 19 feet, which would tend to slow the vertical migration of leachates. At times of heavy rainfall, the water table surface has been noted as high as to be within two feet of the ground surface. There has previously been an impact on shallow aquifer ground water quality in the vicinity of the site due to adjacent landfilling operations and saltwater intrusion. Leaching of the decomposition materials from putrescible waste, and water table mounding, the latter due to an up-building of land during landfilling at the adjacent sites, has already altered the natural state and quality of the shallow aquifer.

One ameliorating factor with regard to the low water quality in the area is that the shallow aquifer waters are not being utilized as a drinking water source. However, the Floridan aquifer below the shallow one is a potential source of potable water. Investigations into possible

impacts from area landfills on that source of water have been conducted by the USGS.

The Floridan aquifer is separated from the surficial aquifer by an aquiclude. Drilling tests by the USGS have not yet indicated significant contamination of the Floridan, although levels of BOD, phosphorous, nitrate-nitrogen in the Floridan aquifer are as high or higher than those of the shallow aquifer or surface waters. It was suggested that the sprayfield activities of the nearby sod farm create an impact which might be the source of these high parameters. If this is the case, then leaching through the aquiclude does occur in amounts which may someday create a significant impact on the Floridan aquifer. How soon such an impact would become a significant problem is unknown. However, drinking water for the Pinellas area is taken from several miles north of the site in Pinellas and Pasco Counties. Since landfill materials from the resource recovery facility should primarily be boiler residue and non-putrescible wastes such as demolition debris, it is felt that any groundwater impacts from these new landfill materials will be much less than that from previously landfilled putrescible materials. There is the possibility that some residue materials such as heavy metals might contaminate groundwaters if they were allowed to leach due to contact with acidic leachate from putrescible wastes.

d. Leachate/Stormwater Treatment -

Leachate, or any other drainage from lifts will be minimized by allowing water to run off the fill rather than being allowed to percolate through the filled material. Leachate which does form by percolation through an active fill will be accumulated at the low point of the active cell. This accumulation will be pumped, via portable pumps,

directly to the aeration pond. It is possible that some leachate may move in the direction of the stormwater holding pond but would still be contained on-site. At no time should raw refuse be deposited in standing water.

The aeration lagoon will be of sufficient size to allow a detention time of one day at the design flow rate of 300 gallons per minute (422,081 gallons per day). Wastewater would then leave the aeration lagoon and enter two water treatment ponds utilizing cattails. The ponds have been designed to allow a maximum detention time of 13.7 days at the design flow rate. Cattails are being used as a mechanism for removing nutrients and heavy metals from the runoff waters. Upon leaving the ponds, wastewater should be chlorinated for bacteria and virus control and pumped to the landspreading area on the southern portion of the site. The irrigation field is approximately 55 acres in size which has a design capability of 300 gpm (application rate of 2 inches per week). Any runoff from the spray field would finally enter a perimeter ditch for evaporation/percolation and/or return to the stormwater holding pond.

Chlorination of waters containing putrescible waste leachate is necessary because of the unknown contents of household garbage, such as diapers and other personal hygiene items. Landfill leachate can be more virulent than sewage.

The spray irrigation area is the closest portion of the site to residential areas but will be shielded somewhat by the site's sight-screening levees. It is, therefore, felt that although the wastewaters to be irrigated should be chlorinated, the degree of treatment need not be quite as stringent as that for public access areas.

Two points of concern over the leachate/stormwater treatment proposal have been (1) whether pumping leachate from the cells to the unlined aeration and treatment ponds might simply move the leaching problem from one area to another (the three ponds themselves may contaminate groundwater by leaching materials, prior to the treatment processes having become effective); and (2) the effectiveness of the treatment process for heavy metal and nutrient removal when done by vegetation. The proposal to surround the site with a clay slurry wall would mitigate concern.

As described above, leachate and stormwater are intended to be treated and contained on the site. Drainage of treated wastewaters from the perimeter canals should be discharged only during emergency, heavy rainfall conditions. Such discharge would occur from an emergency overflow structure located in the middle of the east side of the site.

E.6. Air Quality/Meteorological Effects

a. Construction

The primary sources of air pollutants during construction of the facility will originate from vehicular and heavy equipment exhaust emissions and fugitive dust from wind and the movement of equipment and vehicles over unpaved areas.

The acts of stripping and filling of the construction site will produce some dust clouds; the volume of such particulate matter is difficult to quantify but will probably be less than those levels generated by the trucks, cranes and bulldozers associated with the existing landfill.

Estimates by the EPA indicate that suspended dust levels from heavy construction activities approximate 1.2 tons per acre per month of construction activity. As landfilling and construction will occur simultaneously it is anticipated that dust levels affecting nearby roadways (i.e. 28th Street and 100th Avenue) will be aggravated. The Applicant indicates that water sprays will be applied on problem sites as necessary.

There should be no open burning of land clearing debris.

b. Operation

(i) Emissions

During operation of the facility, expected stack emissions will be particulates, SO_2, fluorides, lead, carbon monoxide, hydrocarbons, mercury, beryllium, chlorides and oxides of nitrogen. Other site emissions will arise from cooling tower evaporation and drift, and fugitive dust from landfilling and truck movement around the site. Odor is not expected to be a problem because plant air will be drawn towards the boiler, where odor-causing chemicals in the air stream will be combusted.

The emission of particulate matter from the boilers has been proposed to be controlled by a three-field electrostatic precipitator (ESP). Such emissions are limited by subsection 17-2, FAC, to 0.08 grains per standard cubic foot corrected to 5% excess air and by subsection 17-2.600(1), FAC, to 20% opacity of visible emissions. The applicant has proposed to meet an emission limit of 0.03 grains per dry standard cubic foot at 12% CO_2. An estimated 96 tons per year of particulates will be emitted by the third boiler at the resource recovery facility.

The three-field electrostatic precipitator has been designed to allow installation of a fourth field to improve the collection of efficiency, if subsequently required. The existing precipitators have been tested and demonstrated compliance with the emission standard. The boiler has the capability of burning alternate fuels, but a shift to an alternate fuel could alter the emission rate, overload the precipitator and require reassessment of ambient air quality impacts.

Hydrocarbon emissions from the plant will be approximately 58 tons per year from the boiler. Oxides of nitrogen will be emitted at a rate of approximately 577 tons per year.

The amount of sulfur found in garbage is normally quite low. Consequently, there are no SO_2 emission limitations for incinerators. However, if a sufficient volume of refuse is incinerated, resultant emission loadings can trigger Prevention of Significant Deterioration (PSD) criteria which require an assessment of emissions exceeding 100 tons per year. The resource recovery facility is proposing to incinerate enough refuse to emit an average of 364 tons per year of SO_2. The Department has conducted a "Best Available Control Technology" analysis for the resource recovery facility (see below) and has proposed an SO_2 emission rate for the facility.

Impacts on Air Quality

1. Air Quality

a. Rule Applicability

The proposed site of the Pinellas County Resource Recovery Facility (RRF) is located in an area designated as nonattainment for ozone under 40 CFR 81.310 and Rule 17-2.410, Florida Administrative Code, and attainment under 40 CFR 81.310 and Rule 17-2.420, for all other criteria pollutants.

The maximum emissions for the proposed resource recovery facility and significant emission rates (40 CFR 52.21(b)(23) and Rule 17-2.500-2), in tons per year, are as follows:

Pollutant	Maximum Emission	Significant Emission Rate
Particulate Matter (PM)	109	25
Sulfur Dioxide (SO_2)	364	40
Nitrogen Oxides (NOx)	577	40
Carbon Monoxide (CO)	288	100
Hydrocarbons (HC)	58(1)	40(VOC)
Lead (Pb)	5.7	0.6
Mercury (Hg)	2.1	0.1
Beryllium (Be)	0.00025	0.004

Fluorides	19	3
Chlorides	764(2)	1 (vinyl chloride)

(1) non-methane HC emissions (VOC will be less than 40 tons per year

(2) vinyl chloride emissions will be less than 1 ton per year

The proposed facility has the potential to emit more than 100 tons per year of one or more regulated pollutants and is, therefore, subject to review for prevention of significant deterioration (PSD) under 40 CFR 52.21 and Rule 17-2.500(5)(c). PSD review consists of a determination of best available control technology (BACT) and an air quality impact analysis for each attainment and non-criteria pollutant that would be emitted in a significant amount. For the proposed facility, PSD review is required for seven pollutants: PM, SO_2, NO_x, CO, lead, mercury, and fluorides.

The proposed facility is not subject to nonattainment review for volatile organic compounds (VOC) because it is a minor source of this pollutant and the proposed increase will be less than 100 tons per year.

b. Control Technology Review

An electrostatic precipitator (ESP) will be installed to control the discharge of particulate matter at 0.03 gr/dscf, or less, corrected to 12% CO_2. The ESP will also control lead, beryllium, and mercury emissions. Sulfur dioxide emissions will be limited by firing municipal waste, a low sulfur content fuel. Burner design and operating procedures will be the methods used to limit NO_x

emissions. Burner controls will be installed to minimize the emission of CO due to incomplete combustion.

Based on an analysis of the economic, environmental, and energy impacts of the proposed project - the construction of a third Martin combustion unit, the Department has made a preliminary BACT determination for the boiler. The emission limits from the BACT determination are as follows:

Pollutant	Emission Limit
Particulate Matter	0.03 gr/dscf, corrected to 12 percent CO_2
Sulfur Dioxide	83 pounds per hour, maximum 3-hour average
Nitrogen Oxides	132 pounds per hour
Carbon Monoxide	66 pounds per hour
Lead	1.3 pounds per hour
Mercury	3200 grams per day*
Visible Emissions	10% opacity

* When more than 2,205 lb/day of municipal sewage sludge (dry basis) is fired, compliance with the mercury emission limit shall be demonstrated in accordance with 40 CFR 61, Method 1 Appendix B.

Compliance with the limitations for particulates, sulfur dioxide, visible emissions, and nitrogen oxides should be demonstrated in accordance with Florida Administrative Code Rule 17-2.700, DER Methods 1, 2, 3, 5, 6 and 40 CFR 60, Appendix A; Method 7. Compliance with the opacity limit shall be demonstrated in accordance with Florida Administrative Code Rule 17-2.700(6)(2)9., DER Method 9.

A continuous monitoring system to measure the opacity of emissions shall be installed, calibrated, and maintained in accordance with the provisions of Rule 17-2.710, Continuous Monitoring Requirements. The system must be installed and operational prior to compliance testing.

(1) BACT Determination Rationale

The proposed mass burn combustion unit will have a charging rate more than 50 tons per day, and therefore, subject to the provisions of 40 CFR 60.50, Subpart E, New Source Performance Standards (NSPS). The NSPS for particulate matter emissions is a rate not to exceed 0.08 grains/dscf corrected to 12% CO_2. The applicant has proposed to limit the particulate emissions rate not to exceed 0.03 grains/dscf corrected to 12% CO_2. An electrostatic precipitator (ESP) will be installed to control particulate emissions at the proposed rate. The two existing mass burn units have a permitted particulate emission limit not to exceed 0.08 grains/dscf (NSPS).

The Department agrees that the use of an ESP is an air pollution control technology currently capable of achieving the 0.03 grains/dscf particulate emission limit, and is considered BACT for this source. The baghouse is another control device capable of achieving the particulate emission limit determined as BACT, but was not recommended for two reasons: 1) the existing combustion units use ESP's; therefore the spare parts inventory is minimized, and 2) maintenance and operating personnel have experience with this type of control device.

The mercury emission limit is the National Emission Standard for Hazardous Air Pollutants (NESHAPs), 40 CFR 61.50, Subpart E, for municipal waste water sludge incineration plants. The proposed source would be subject to the provisions of NSPS, 40 CFR 60.150, Sewage Treatment Plants, if more than 2205 pounds per day (dry basis) of municipal sewage sludge is charged. The Department has determined the emission limit for mercury to be 3200 grams per day applicable only when more than 2205 pounds per day (dry basis) of municipal sewage sludge is charged into the mass burn combustion unit. The Department has determined the limit for SO_2 emissions to be 83 pounds per hour. The amount of SO_2 generated when burning municipal type waste is less than the SO_2 emissions from the burning of distillate fuel oil containing 0.5% sulfur and the use of low sulfur fuel oil is considered one method of controlling SO_2 emissions; therefore, the installation of a flue gas desulfurization system is not warranted.

The combustion of plastics can result in the emission of acid gases, such as hydrogen chloride and hydrogen fluoride. Polyvinyl chloride (PVC), one of the many polymers, has been implicated as causing the most serious disposal problem due to the release of HCl gas when burning. This problem has long been realized resulting in other polymers being used in packaging. Polypropylene and polystyrene, for example, produce carbon monoxide or the monomer styrene when burned. Both HCl and HF are hydrogen halides and are soluble in water. A water scrubbing system will remove approximately 75% of the HF and HCl gases. The Department does not believe the air quality impact due to these emissions justifies the cost of installing

a wet scrubber system.

During combustion of municipal solid waste, NO_x is formed in high temperature zones in and around the furnace flame by oxidation of atmospheric nitrogen and nitrogen in the waste. The two primary variables that affect the formation of NO_x are the temperature and the concentration of oxygen. Techniques such as the method of fuel firing, the distribution of combustion air between overfire and underfire air, exhaust gas recirculation and decreased heat release rates have been used to reduce NO_x emissions. A few add-on control techniques such as the catalytic reduction with ammonia process and the thermal de-NO_x are still experimental and are not considered to be demonstrated technology for the proposed project.

In their application, the applicant proposes to use the distribution of combustion air between overfire and underfire air technique to minimize NO_x emissions. The proposed NO_x emission rate is 132 pounds per hour as indicated in their air quality analysis. Annual emissions of NO_x will be 577 tons. This level of control is judged to represent BACT.

Lead emissions from the incinerator occur because this element is present in varying amounts in the solid waste. The inlet temperature of the ESP is estimated at 425-475^{o}F. At these temperatures the lead emissions should be in a nonvaporous state and will be removed in the ESP along with the rest of the particulates.

The visible emissions opacity limit is based on operating data from the two existing units.

Carbon monoxide is a product of incomplete combustion where there is insufficient air. Incomplete combustion will also result in the emissions of solid carbon particulates in the form of smoke or soot and unburned and/or partially oxidized hydrocarbons. Incomplete combustion results in the loss of heat energy to the boiler. The Department agrees with the applicant that BACT is the use of state-of-the-art boiler controls to insure sufficient underfire and overfire air so that the emissions of products of incomplete combustion are minimized. The proposed CO emission rate is 66 pounds per hour. This level of control is judged to represent BACT.

The air quality impact of the proposed emissions has been analyzed. Atmospheric dispersion modeling has been completed and used in conjunction with an analysis of existing air quality to determine maximum ground-level ambient concentrations of the pollutants subject to BACT. Based on these analyses, the department has reasonable assurance that the proposed source at the Pinellas County RRF, subject to these BACT emission limitations, will not cause or contribute to a violation of any PSD increment or ambient air quality standard.

c. Air Quality Impacts

As noted in section I. 1. a., the proposed source at the Pinellas County RRF will result in significant emissions of the criteria pollutants PM, SO_2, NO_x, CO and lead, and of the non-criteria pollutants mercury and fluorides.

The air quality impact analysis required for these pollutants includes:

* An analysis of existing air quality;
* A PSD increment analysis (for PM and SO_2 only);
* An Ambient Air Quality Standards (AAQS) analysis;
* An analysis of impacts on soils, vegetation, visibility, acid rain, and growth-related air quality impacts, and;
* A "good engineering practice" (GEP) stack height determination.

The analysis of existing air quality generally relies on preconstruction monitoring data collected in accordance with EPA-approved methods. The PSD increment and AAQS analyses depend on air quality modeling carried out in accordance with EPA guidelines.

Based on these required analyses, the department has reasonable assurance that the proposed source at the Pinellas County RRF, as described in this report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any PSD increment or ambient air quality standard. A discussion of the modeling methodology and required analyses follows.

(1) Modeling Methodology

Two EPA-approved dispersion models, the Single Source CRSTER model and the Industrial Source Complex Short-term (ISCST) model, were used in the air quality impact analysis. Both of these models relate ground-level concentrations at some distance to pollutant emissions of some inert gas or small particles from a point source by imposing a Gaussian solution to the steady-state mass conservation equation. The CRSTER model, which is confined by the colocation of all point sources, was used to identify the critical years of meteorology. The ISCST model, which allows for separation of sources and several other features, such as the inclusion of downwash, was used to refine the analysis.

The surface and upper air meteorological data used in these models were National Weather Service data collected at Tampa, Florida, during the period 1970-1974. Since five years of data were used, the highest, second-high short-term predicted concentrations may be used to compare with the appropriate ambient standard or PSD increment.

The stack parameters and emission rates used in evaluating the ambient impacts are contained in Table I-1 and Table I-2, respectively. Only for the pollutants SO_2 and PM were all the sources evaluated. Total ambient air quality impacts were based on the modeled impacts plus the monitored "background" concentrations.

(2) Analysis of Existing Air Quality

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review. In general, one year of quality assured data using an EPA-reference, or the equivalent, monitor must be submitted. Sometimes less than one year of data, but no less than four months, may be accepted when department approval is given. An exemption to this requirement can be obtained if the maximum air quality impact, as determined through modeling, is less than a pollutant-specific deminimus concentration. In addition, if current monitoring data already exist and these data are representative of the proposed source

area, then at the discretion of the department these data may be used.

The predicted maximum air quality impacts of the proposed project (Unit 3) for each of the seven pollutants subject to review are given in Table I-3 along with the monitoring deminimus levels. From this table it is seen that PM, NOx, CO, and Hg have maximum air impacts less than the deminimus level; therefore no preconstruction monitoring is required. Sufficient data in the area of the source already exist for SO_2 and Pb to define existing air quality for these pollutants. The department did not require additional monitoring for these pollutants. Although fluorides are subject to monitoring requirements, no EPA-approved method currently exists to measure ambient concentration of this pollutant.

Table I-4 shows the monitored ambient air quality levels for the most recent complete year (1982) for all the criteria pollutants, including the required data for SO_2 and Pb. These data were collected from existing monitors in Pinellas County.

(3) PSD Increment Analysis

The Pinellas County RRF is located in an area where the Class II PSD increments apply. The facility is also located approximately 75 kilometers from the Class I Chassahowitzka

National Wilderness Area. As such an analysis of the impact on this area must be performed.

A PSD increment analysis is required for the pollutants SO_2 and PM only. The PSD increments represent the amount that new sources in the area may increase ambient ground-level concentrations of these pollutants for various time averages. At no time, however, can the increased loading of these pollutants into the atmosphere from these new sources cause or contribute to a violation of the ambient air quality standards.

For the Pinellas County RRF the proposed Unit 3 along with the previously built Units 1 and 2 all consume PSD increment. In addition, several other new sources in the area have been identified which may interact with the Pinellas County RRF in consuming the allowed PSD increments. These sources are the McKay Bay RRF and the TECO Big Bend power plant.

Atmospheric dispersion modeling was performed, as discussed previously, taking into account only those new sources which consume PSD increment. The results of this modeling are summarized in Table I-5.

The impact of these sources on the nearest Class I area was not explicitly modeled. The models used in this air quality analysis are not appropriate for predicting ground-level concentrations beyond 50 kilometers. However, the impact on the

Class I area may be extrapolated from the modeling results showing the proposed Unit 3 impact on the two distant non-attainment areas. An SO_2 nonattainment area is located near Tarpon Springs approximately 23.5 kilometers from the Pinellas County RRF. The impacts of Unit 3 alone on this area are 2.2 ug/m^3, 3-hour average; 0.3 ug/m^3, 24-hour average; and 0.02 ug/m^3, annual average. These values are less than significant for impacts on nonattainment areas and would be much less at the distance of the Class I area. A PM nonattainment area is located in Tampa, 14.4 kilometers from the RRF. Here, the impacts of Unit 3 alone are 0.01 ug/m^3, 24-hour average and 0.006 ug/m^3, annual average. Again, these impacts are less than significant for nonattainment areas and the concentrations would be much less at the distance of the Class I area. Table I-5 indicates the results of all the PSD increment modeling.

(4) AAQS Analysis

Given existing air quality in the area of the Pinellas County RRF, the proposed Unit 3 emissions are not expected to cause or contribute to a violation of an AAQS. The results of the AAQS analysis are contained in Table I-6.

Of the pollutants subject to PSD review only the criteria pollutants SO_2, PM, CO, NO_2, and Pb have an AAQS to compare with. All sources listed in Table I-1 were modeled to determine the maximum ground-level impacts for SO_2 and PM. For CO, NO_2, and Pb

only the three units at the Pinellas County RRF were modeled to determine the maximum ground-level concentrations resulting from this facility.

The total impact on ambient air is obtained by adding a "background" concentration to the maximum modeled concentrations. This "background" concentration takes into account all sources of the particular pollutant in question that were not explicitly modeled. A conservative estimate of these "background" concentrations is given by the second highest monitored concentration as listed in Table I-4. This is a conservative estimate because sources used in the modeling may have contributed to the monitored value and this would be contributing doubly to the total impact.

(5) Analysis of Impacts on Soils, Vegetation, Visibility, and Acid Rain and Growth-Related Air Quality Impacts

(a) Impact on Soils and Vegetation

The maximum ground-level concentrations predicted to occur as a result of emissions from the proposed project in conjunction with all other sources, including a background concentration, will be below all applicable AAQS including the secondary standards designed to protect public welfare-related values. No soils or species of vegetation highly sensitive to these

emissions in the concentrations predicted are known to occur in the site vicinity, or in the Chasshowitzka Class I area.

(b) Impact on Visibility

A level I visibility screening analysis was performed to determine if any impact may occur in the Class I area. The analysis showed that there was no potential for an adverse impact on visibility in this area.

(c) Acid Rain Impact

The increased emissions of SO_2 and NOx, precursors to possible acid formation and subsequent acidic rain, from the proposed Unit 3 project are relatively small. In comparison with the emissions of these pollutants from nearby power plants the increased loading due to the proposed project is inconsequential. Thus, no adverse impact on the acidity of rainfall is expected as a result of this project.

(d) Growth-Related Air Quality Impacts

The construction of the proposed Unit 3 will require between 200 and 300 persons. Nearly all will be from the local area. The project is not expected to stimulate any additional growth or shift the nature of projected growth to the extent that an air quality impact will result.

(e) GEP Stack Height Determination

Good engineering practice (GEP) stack height means the greater of: (1) 65 meters; or (2) the maximum nearby building height plus 1.5 times the building height or width, whichever is less. For the proposed project the building height is 35.4 meters and the building width is 35.0 meters. Thus definition (2) above leads to a GEP stack height of 87.9 meters.

Due to the proximity of the facility to an airport, the stack height cannot be built to the GEP height. The applicant has addressed the possible increased ground-level concentrations (as a result of aerodynamic effects of the nearby building) by including a downwash mechanism in the modeling.

TABLE I-1
PINELLAS COUNTY RESOURCE RECOVERY PROJECT
SOURCE PARAMETERS USED IN MODELING

Source	UTM-E (km)	UTM-N (km)	Stack Height (m)	Exit Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)
RRF Unit 3	335.2	3084.1	49.1	505	26.8	2.37
RRF Units 1-2	335.2	3084.1	49.1	505	26.8	2.37
McKay Bay RRF	360.0	3091.9	45.7	500	21.3	1.91
TECO Big Bend	361.9	3075.0	149.4	426	15.6	7.00
FPC Bartow	342.4	3082.7	91.4	408	44.0	3.35
FPC Higgins	336.5	3098.5	53.0	422	10.4	3.81
Anclote Unit 1	324.9	3119.0	152.1	416	50.0	3.66
Anclote Unit 2	324.9	3119.0	152.1	416	28.3	3.66
Hooker Pt. Units 1,2	360.0	3087.5	61.0	427	8.1	4.30
Hooker Pt. Units 3,5	360.0	3087.5	93.3	400	26.9	3.20
Hooker Pt. Unit 4	360.0	3087.5	93.3	438	42.4	2.90
Hooker Pt. Unit 6	360.0	3087.5	93.3	417	23.4	5.40
TECO Gannon Units 1-5	385.0	3091.0	85.3	403	9.2	3.43
TECO Gannon Unit 6	385.0	3091.0	85.3	403	18.0	2.87

Area Source	UTM-E (km)	UTM-N (km)	Release Height (m)	Area Width (m)
Golden Triangle	330.0	3085.0	12.45	100

TABLE I-2
PINELLAS COUNTY RESOURCE RECOVERY PROJECT
MAXIMUM HOURLY EMISSION RATES

Source	SO_2 (g/s)	PM (g/s)	NOx (g/s)	CO (g/s)	HC (g/s)	Pb (g/s)	Hg (g/s)	Be (g/s)	Fluorides (g/s)	Chlorides (g/s)
RRF Unit 3	10.5	2.8	16.6	8.3	1.7	0.17	0.06	7.2×10^{-6}	0.55	22.0
RRF Units 1-2	21.0	5.6								
McKay Bay RRF	21.4	4.1								
TECO Big Bend	6002.2	79.2								
FPC Bartow	722.2	30.9								
FPC Higgins	286.7	8.9								
Anclote Unit 1	1631.9	58.1								
Anclote Unit 2	816.0	29.0								
Hooker Pt. Units 1,2	328.0	15.1								
Hooker Pt. Units 3,5	384.8	16.7								
Hooker Pt. Unit 4	142.6	9.6								
Hooker Pt. Unit 6	832.6	10.1								
TECO Gannon Units 1-5	130.7	11.8								
TECO Gannon Unit 6	58.3	2.6								

TABLE I-3

MAXIMUM AIR QUALITY IMPACTS (UNIT 3 ONLY)
FOR COMPARISON TO DEMINIMUS AMBIENT LEVELS

Pollutant	Maximum Modeled Concentration (ug/m^3)	Deminimus Ambient Impact Level (mg/m^3)
SO_2 (24-hour)	15.6	13
PM (24-hour)	4.1	10
NO_2 (Annual)	0.9	14
CO (8-hour)	8.6	575
Pb (24-hour)	0.25	0.1
Hg (24-hour)	0.082	0.25
Fluorides (24-hour)	0.82	0.25

TABLE I-4

PINELLAS COUNTY 1982 MONITORING DATA IN THE VICINITY OF THE PINELLAS COUNTY RESOURCE RECOVERY FACILITY

Pollutant	Site	Averaging Time	Maximum Concentration(ug/m^3)	2nd Maximum Concentration(ug/m^3)
SO_2	3980 023	3-hour	642	485
		24-hour	205	112
		Annual	24	-
PM	3980 023	24-hour	67	64
		Annual	33	-
NO_2	3980 018	Annual	27	-
CO	3980 018	1-hour	14000	11000
		8-hour	7000	6000
Pb	3980 024	Quarterly	0.8	0.7

TABLE I-5
COMPARISON OF NEW SOURCE IMPACTS
WITH PSD INCREMENTS

Pollutant and Time Average	PSD Class II Increment(ug/m^3)	Predicted Concentration(ug/m^3)	Increment Consumed(%)	PSD Class I Increment(ug/m^3)	Predicted Concentration(ug/m^3
SO_2					
3-hour	512	246	48	25	<<25
24-hour	91	81	89	5	<<5
Annual	20	5	25	2	<<2
PM					
24-hour	37	6	16	10	<<10
Annual	19	0.4	<0.1	5	<<5

TABLE I-6
COMPARISON OF TOTAL IMPACTS WITH
AMBIENT AIR QUALITY STANDARDS

Pollutant and Time Average	Maximum Impact Unit 3 (ug/m^3)	Maximum Impact All Sources (ug/m^3)	Existing Background (ug/m^3)	Maximum Total Impact (ug/m^3)	Florida AAQS (ug/m^3)
SO_2					
3-hour	24	269	485	754	1300
24-hour	16	96	112	208	260
Annual	0.6	14	24	38	60
PM					
24-hour	4	6	64	70	150
Annual	0.2	0.7	33	34	60
NO_2					
Annual	1	3	27	30	100
CO					
1-hour	13	39	11000	11039	40000
8-hour	9	27	6000	6027	10000
Pb					
Quarterly	0.3	0.7	0.8	1.5	1.5

Fog -

A steam plume will be visible from the cooling tower when the concentration of water vapor in the cooling tower exhaust exceeds the capacity of the ambient air to hold water vapor. This becomes more noticeable in the cooler, winter months. Plant induced fog has been estimated to occur on an average of 14 days per month. Since cooling-tower induced air saturation will decrease with distance from the tower, the potential for fogging will be accordingly reduced. It is thus not anticipated that plant induced fogging will significantly impact major roadways such as Interstate 275 or the airport.

E.7. NOISE

a. Construction -

During construction of the plant, noises will be those associated with earth moving, foundation work, erection of steel, pouring of concrete, normal plant operations, and waste landfilling. The nearest residential area subject to potential impact from construction noise is approximately 0.8 mile away. Landfilling and previous construction have been going on in the area producing noises very similar to construction work; thus construction is not expected to introduce any "new" noises. The simultaneous operation of both landfilling and construction equipment is expected to increase noise levels only slightly above that of just landfilling. However, the residents may be annoyed by the increased duration of the noise during daylight hours.

b. Operation -

The addition of the power plant/resource recovery facility itself should not result in a significant increase in noise levels present in the nearest residential areas. Activities associated with the operation

of the plant such as the residue landfilling and the truck traffic bringing refuse to the plant will likely be the significant sources of noise. Truck traffic into the plant will be from the north, through the industrial area, removing it from residential roadways. Noise levels from the mobile sources will depend on types of equipment utilized over the years, and the degree of maintenance give. Concentration of vehicular noise at the plant should be buffered by the plant's enclosed tipping area, site levees, and landscaping. The elimination of large scale landfilling in the area should bring a reduction in overall noise levels.

Although the State does not currently have noise limitations, both Pinellas County and the City of Pinellas Park either have noise ordinances or zoning standards pertaining to noise with which the resource recovery facility construction and operation will be expected to comply.

E.8 Solid Waste/Hazardous Materials

Construction debris such as paper, concrete, and plastic will be landfilled, while scrap metals will be recovered for possible recycling.

During plant operation, the refuse is sorted for large items or non-combustibles such as demolition debris; remaining refuse will be incinerated. Following combustion, the residue passes through a resource recovery system designed to extract ferrous and non-ferrous metals. The residue which then remains is approximately 2.1 percent by weight of the original raw waste. At a guaranteed level of 530,000 tons-incoming-raw-waste-per-year, approximately 11,130 tons of unusable residue will remain. This waste will be landfilled on the site. Pinellas County estimates that approximately one acre per year will be required for residue disposal.

In the event of a facility shutdown, storage facilities at the processing plant will be sufficient for storage of 3 to 4 days of incoming waste. If the plant would remain out of operation beyond 3 to 4 days, incoming raw wastes would be landfilled at the site until processing operations could resume.

The original plan of operation for the facility indicated that wastes would be landfilled in lifts which might extend as much as twenty feet below ground surface. In the past, the limiting depth of the lifts was the level to which the cells could be kept dewatered during filling. At times, groundwater levels come within one foot of the ground surface, which would inundate wastes buried that deeply.

The recently amended Section 17-7.04, FAC, now prohibits the disposal of solid waste in any artificial body of groundwater (a landfill cell with groundwaters seeping into it would fit that definition). However, if the pit or cell is dewatered, then disposal of solid waste can occur, but only if permanent leachate controls are provided. A permanent control would be one that is effective after the cell is covered, throughout the life of the site, and beyond as well, until the wastes have decayed to innocuous residues.

The original operation plan indicates pumping of leachates and groundwaters from active cells, but did not make provisions for control of groundwater inundation once pumping has halted. The County has proposed using a clay slurry wall keyed into subsurface clays as a permanent leachate control measure. The County has also shown that boiler residue is not a hazardous waste although there is a potential for several parameters to violate water quality criteria.

The operational plan does indicate a buffer space between the landfill area and the boundary of the site, of approximately 250 ft. At the maximum horizontal flow rate of 10 ft. per year (see groundwater section), this could delay migration of contaminated groundwaters across the site boundary approximately 25 years. This delay could provide sufficient time for dilution of contaminants to water quality standards at the site boundary. The County has requested a zone of discharge up to the site boundary. However, a more effective means of protecting groundwaters from contamination would be to remove the potential for groundwater contact altogether by placing the putrescible wastes (which will hopefully be in small quantities) above the maximum groundwater level. This would then be in accord with Chapter 17-17, FAC, since no permanent leachate controls have been installed.

F. Impacts on Surrounding Land Use and Population Density

The area surrounding the site does not have a high population density. Some commercial and industrial complexes are located to the northwest of the site, as well as some agricultural areas. The land adjoining the facility site is either used for landfills or is utilized as an experimental sod farm for treatment of sewage sludges. The closest residential properties at this time are located approximately a mile to the southwest in Pinellas Park.

The 1977 Population estimated for Pinellas Park and the City of St. Petersburg, respectively, were 34,420 and 258,260, with population densities of 5.4 and 7.2 persons per acre. Both the population levels and densities in the entire county have increased substantially over 1970 estimates to 728,531 in 1980, further contributing to the Pinellas County solid waste problem. The County estimates a population increase of 68,000 people over the five year period from 1980 to 1985. The population is expected to increase 38% over a 20 year period.

One of the impacts of local land use seems to be that of the sod farm

sewage effluent spray irrigation percolation on the area's groundwater quality. Groundwater data suggest contaminated plume spreading from the sod farm. Another similar water quality impact from a particular land use is that of high fecal coliform levels in surface waters monitored west of the proposed facility due to seagull populations feeding off raw garbage in the existing landfill. This impact is likely to decline, concurrent with termination of putrescible waste landfilling and operation of the incineration/power production facility.

Impact on land use and population due to the construction of the resource recovery plant, on an overall basis, is not considered to be a negative one.

G. Impact on Public Lands and Submerged Lands

Other than the site itself, no other public land will be directly affected by the construction of the new boiler.

Neither the facility nor the transmission lines are located in the proximity of submerged lands. Therefore, no impacts on those lands can be expected.

H. Impact on Archaeological Sites and Historic Preservation Areas

The facility site is to be located on the premises of an existing landfill. It was thus not expected to have any historical significance, an expectation concurred with by the Deputy State Historic Preservation Officer (see Agency Comments section).

An archaeological survey was previously conducted for the entire landfill tract. No archaeological sites were located. The plant site is not located in the proximity of any inventoried sites of historical or archaeological significance, and so should have no impact on off-site locations.

VII. CONSTRUCTION AND OPERATIONAL SAFEGUARDS

As outlined in the application, construction procedures, including runoff control facilities and practices to avoid contamination of state waters, must be implemented. The construction site will be isolated from the general public by appropriate means which may include fences and guards. Compliance with OSHA standards and the provisions of Section 440.56, F.S., should adequately protect construction workers and operating personnel.

The conceptual design of most of the major pollution control equipment appears sufficient to protect the public and to protect the environment from significant harm.

VIII. COMPLIANCE AND VARIANCES

A. Compliance

As currently designed, the Pinellas County Resource Recovery Facility will not contribute to a violation of ambient air quality standards.

The disposal of solid waste and boiler residue in unlined cells will produce contaminate leachate that makes compliance with groundwater quality criteria at site boundaries uncertain. If the combustion waste storage area is surrounded by a bentonite clay slurry wall keyed into underground clays, if raw garbage is kept above the water table, and if the conditions of certification are complied with, then ground water quality criteria should not be degraded.

IX. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

1. Construction Impacts

Construction of the proposed facilities would have the following impacts:

a. Disruption of previously disturbed land adjacent to the existing facility.

b. Construction noise levels (excluding pile driving and steam blowout of boiler tubes) should be slightly less than 55 dB(A) equivalent to EPA's guidelines at the boundary of the site. This should not be an annoyance to outside activities at the nearest residences. Steam blowout may cause noticeable noise levels at the nearest residence. Steam blowout will occur intermittently over a two week period. Pinellas County should attempt to notify the neighboring residents prior to the start of steam tube blowout in an effort to partially mitigate any annoyance caused by the loud noises.

c. Construction traffic to and from the site should not cause any additional congestion in the plant vicinity.

2. Operation

a. The Resource Recovery Facility (RRF) will burn solid waste. Impacts on air quality will include emissions such as sulfur dioxide, oxides of nitrogen, particulate matter and other minor constituents. These emissions will be limited by use of control technology considered to be the best available. Fugitive dust from vehicles, heavy equipment and ash handling

will be controlled by a variety of methods to reduce adverse impacts. The control equipment is designed to comply with federal and state emission limitations. Under most meteorological conditions, the RRF plant will not contribute to violations of ambient air quality standards.

b. There is sufficient water available from the nearby sewage treatment plants to supply the volume requirements of the cooling system.

c. There will be no consumptive use of fresh groundwater at the RRF due to use of treated sewage effluent in the cooling system. A small amount of potable water will be obtained from the Pinellas Park municipal water system.

d. The Southwest Florida Water Management District stated the following in their report dated September 22, 1983:

> "The county is using reclaimed water for its industrial non-potable needs, which reduces the need for potable water and promotes water conservation. We encourage the use of reclaimed water for this and other similar projects."

e. The percolation of leachate from the solid waste disposal areas may violate groundwater criteria both beneath and beyond the site boundaries due to the permeability of the sands underlying the site. Leachate containing heavy metals may adversely affect the creeks and wetland communities bordering the site to the east.

f. Noise from operation of the plant addition should not greatly increase noise levels in the area. The operation of the sanitary landfill and its associated traffic will tend to mask operational noise of the RRF.

3. The original site was found by the Governor and Cabinet to be in compliance with local land use plans and zoning regulations.

4. The Public Service Commission has concluded a need exists for the expanded facility.

5. The Department of Community Affairs concluded that for the most part the proposed RRF meets most of the objectives, goals and policies of the State Comprehensive Plan.

6. The Division of Archives, History and Records Management determined that the proposed plant was not likely to affect significant archaeological or historical sites.

7. The construction and operation of the resource recovery facility will permit the closing of current landfills and a reduction in land area that would otherwise be required for future landfills.

8. Use of the facility will reduce groundwater pollution due to cessation of the disposal of raw garbage in the County's existing landfills; there will be a concurrent reduction in air and noise pollution, odors, flies, scavenging birds, and other vectors due to the closure of landfills containing putrescible wastes.

9. Ninety-eight percent of the solid waste received will be reduced. Recovery will be either as recyclable materials or as electricity. The remaining two percent will be landfilled as a relatively inert residue (ash).

10. Putrescible wastes should be landfilled in separate cells from the boiler residues, to minimize the possibility of enhancement of metallic leachate formation through chemical interactions between the organic acids formed from the decomposition of putrescible wastes and the boiler residue.

11. Utilization of treated sewage effluent for cooling purposes conserves higher-quality water for more quality-dependent purposes.

12. Noise generated by the construction of the plant may create a slight nuisance to the existing residential areas; operational noise should be no greater than currently occurring in the area.

B. Recommendations

If Pinellas County agrees to abide by the conditions of certification, the DER would recommend certification of the Resource Recovery Plant. This recommendation is based on the following rationale.

1. Full load operation of the RRF would not violate ambient air quality standards.

2. Proper management of stormwater runoff and installation of permanent leachate controls such as a slurry wall around the site should prevent violations of water quality criteria off site.

3. The conversion of solid waste into energy reduces the potential for groundwater contamination and public health hazards and will benefit electric utility customers by producing electricity not dependent on expensive imported oils.

State of Florida Department of Environmental Regulation
Pinellas County
Resource Recovery Facility
Case No. PA 78-11 and PA 83-18
CONDITIONS OF CERTIFICATION

Table of Contents

State of Florida Department of Environmental Regulation
Pinellas County
Resource Recovery Facility
Case No. PA 78-11 and 83-18
CONDITIONS OF CERTIFICATION

I. CHANGE IN DISCHARGE

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant not identified in the application, or more frequent than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions, production increases, or process modifications which may result in new, different, or increased discharges or pollutants, change in fuel, or expansion in steam generating capacity must be reported by submission of a new or supplemental application pursuant to Chapter 403, Florida Statutes.

II. NON-COMPLIANCE NOTIFICATION

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specified in this certification, the permittee shall notify the Southwest Florida District Manager of the Department by telephone during the working day that said noncompliance occurs and shall confirm this in writing within seventy-two (72) hours of becoming aware of such conditions, and shall supply the following information:

A. A description of the discharge and cause of noncompliance; and

B. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying event.

III. FACILITIES OPERATION

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this certification. Such systems are not to be bypassed without prior Department approval.

IV. ADVERSE IMPACT

The permittee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

V. RIGHT OF ENTRY

The permittee shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the presentation of credentials:

A. To enter upon the permittee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit, and

B. To have access to and copy any records required to be kept under the conditions of this certification, and

C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants, and

D. To assess any damage to the environment or violation of ambient standards.

VI. REVOCATION OR SUSPENSION

This certification may be suspended or revoked pursuant to Section 403.512, Florida Statutes, or for violations of any of its conditions.

VII. CIVIL AND CRIMINAL LIABILITY

This certification does not relieve the permittee from civil or criminal penalties for noncompliance with any conditions of this certification, applicable rules or regulations of the Department or Chapter 403, Florida Statutes, or regulations thereunder.

Subject to Section 403.511, Florida Statutes, this certification shall not preclude the institution of any legal action or relieve the permittee from any responsibilities, or penalties established pursuant to any other applicable State Statutes, or regulations.

VIII. PROPERTY RIGHTS

The issuance of this certification does not convey any property rights in either real or personal property, nor any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights nor any infringement of Federal, State or local laws or regulations.

XI. SEVERABILITY

The provisions of this certification are severable, and if any provision of this certification or the application of any provision of this certification to any circumstances, is held invalid, the application of such provision to other circumstances and the remainder of the certification shall not be affected thereby.

X. DEFINITIONS

The meaning of terms used herein shall be governed by the definitions contained in Chapter 403, Florida Statutes and any regulations adopted pursuant thereto. In the event of any dispute over the meaning of a term in these general or special conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning as determined by the Department.

XI. REVIEW OF SITE CERTIFICATION

The certification shall be final unless revised, revoked or suspended pursuant to law. At least every five years from the date of issuance of certification the Department shall review all monitoring data that has been submitted to it during the preceding five-year period for the purpose of determining the extent of the permittee's compliance with the conditions of this certification and the environmental impact of this facility. The Department shall submit the results of its review and recommendations to the permittee. Such review will be repeated at least every five years thereafter.

XII. MODIFICATION OF CONDITIONS

Pursuant to Subsection 403.516(1), F.S., the Board hereby delegates the authority to the Secretary to modify any condition of this certification dealing with sampling, monitoring, reporting, specification of control equipment, related time schedules, or any special studies conducted, as necessary to attain the objectives of Chapter 403, Florida Statutes.

All other modifications shall be made in accordance with Section 403.516, Florida Statutes.

XIII. CONSTRUCTION

The facility shall be constructed, as a minimum, pursuant to the design standards presented in the application.

A. Control Measures

1. Stormwater Runoff

To control runoff during construction which may reach and thereby pollute Waters of the State, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden stormwater to insure against spillage or discharge of excavated material that may cause turbidity in excess of 50 Jackson Turbidity Units above background in Waters of the State. Control measures may consist of sediment traps, barriers, berms, and vegetation plantings. Exposed or dis-

turbed soil shall be protected and stabilized as soon as possible to minimize silt and sediment laden runoff. The pH shall be kept within the range of 6.0 to 8.5.

2. Burning

Open burning in connection with land clearing shall be in accordance with Chapter 17-5, FAC, and County Ordinance 76-18. No additional permits shall be required, but prior to each act of burning, the Division of Forestry shall be contacted to determine if satisfactory conditions exist for burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.

3. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the appropriate local health agency.

4. Solid Wastes

Solid wastes resulting from construction shall be disposed of in accordance with the applicable regulations of Chapter 17, FAC.

5. Noise

Construction noise shall not exceed local noise ordinance specifications, nor those noise standards imposed by zoning.

6. Dust

The County shall employ proper dust-control techniques to minimize fugitive dust emissions.

7. Transmission Lines

The directly associated transmission lines from the Resource Recovery Facility electric generators to the existing Florida Power Corporation Gandy substation shall be cleared, maintained and prepared without the use of herbicides.

B. Environmental Control Program

An environmental control program shall be established under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable conditions of certification.

If unexpected or harmful effects or evidence or irreversible environmental damage are detected during construction, the permittee shall notify the DER Southwest Florida District Office, 7601 Highway 301 North, Tampa, Florida, 33610, by telephone during the working day that the effect or damage

occurs and shall confirm this in writing within seventy-two (72) hours of becoming aware of such conditions, and shall provide in writing an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects of damage.

C. Reporting

1. Starting three (3) months after certification, a quarterly construction status report shall be submitted to the Southwest Florida District Office of the Department of Environmental Regulation. The report shall be a short narrative describing the progress of construction.

2. Upon completion of construction the DER Southwest Florida District Office will be notified in order that a pre-operational inspection can be performed.

XIV. OPERATION

A. Air

The operation of the Resource Recovery Facility shall be in accordance with all applicable provisions of Chapter 17-2, 17-5, and 17-7, Florida Administrative Code. In addition to the foregoing, the permittee shall comply with the following specific conditions of certification:

1. Emission Limitations

a. Stack emissions shall not exceed the following:

(1) Particulate matter: 0.03 grains per standard cubic foot dry gas corrected to 12% CO_2

(2) SO_2: 83 lbs/hr of Sulfur Dioxide

(3) Nitrogen Oxides: 132 lbs/hr

(4) Carbon Monoxide: 66 lbs/hr

(5) Lead: 1.3 lbs/hr

(6) Mercury: 3200 grams/day when more than 2205 lbs/day of municipal sludge is fired. Compliance shall be determined in accordance with 40 CFR 61, Method 101, Appendix B.

(7) Odor: there shall be no objectionable odor.

(8) Visible emissions: opacity shall be no greater than 10% except that visible emissions with no more than 20% opacity may be allowed for up to three minutes in any one hour. Opacity compliance shall be demonstrated in accordance

with Florida Administrative Code Rule 17-2, 700(6)(2)9;, DER Method 9.

b. The height of the boiler exhaust stacks shall not be less than 161 feet above grade.

c. The incinerator boilers shall not be loaded in excess of their rated capacity of 87,500 pounds per hour each.

d. The incinerator boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity and certification number.

e. Compliance with the limitations for particulates, sulfur oxides, nitrogen oxides, carbon monoxide and lead shall be determined in accordance with Florida Administrative Code Rule 17-2.700, DER Methods 1, 2, 3, 5, 6, and 40 CFR 60, Appendix A, Method 7. The stack test shall be performed at ± ___% of the maximum steam rate of ____ pounds per hour.

2. Electrostatic Precipitator

The three-field electrostatic precipitator shall be designed and constructed to allow the installation of a fourth field in the event that the three-field ESP fails to perform as specified, or if other parameter of the facility's operation are subsequently modified, necessitating additional control.

3. Air Monitoring Program

a. The permittee shall install and operate continuously monitoring devices for stack oxygen and opacity. The monitoring devices shall meet the applicable requirements of Chapter 17-2.710, FAC, and 40 CFR 60.45, and 40 CFR 60.13, including certification of each device.

b. The permittee shall provide sampling ports into the stack and shall provide access to the sampling ports in accordance with Section 17-2.700 (4), FAC.

c. The permittee shall have a sampling test of the stack emissions performed by a commercial testing firm within 90 days of the start of operation of the boilers and annually from the date of testing thereafter.

d. The permittee shall install and operate two continuous SO_2 monitors and one continuous wind direction and velocity monitor in the immediate vicinity of the site. The monitors shall be specifically located as designated by the DER and shall conform to 40 CFR 53. Monitoring shall begin upon commencement of operation.

4. Reporting

a. Two copies of the results of the stack tests shall be submitted within forty-five days of testing to the DER Southwest Florida District Office.

b. Stack monitoring shall be reported to the DER Southwest District Office on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR, Part 60, Section 60.7.

c. SO_2 monitoring shall be reported to the DER Southwest Florida District Office on a monthly basis.

B. Fuel

The Resource Recovery Facility shall utilize refuse such as garbage and trash (as defined in Chapter 17-7, FAC) as its fuel. Use of alternate fuels would necessitate modification of these Conditions of Certification.

C. Cooling Tower

1. Makeup Water Constituency

The Resource Recovery Facility shall utilize only treated sewage effluent or stormwater runoff from the stormwater holding pond as cooling tower makeup water. The effluent shall have received prior to use in the tower, as a minimum, secondary treatment, as well as treatment described in Condition XIV.C.2. below. Use of waters other than treated sewage effluent or site stormwater, i.e., higher quality potable waters or lower quality less-than-secondarily treated sewage effluent, will require a modification of conditions agreed to by the Southwest Florida Water Management District and the Department and must be approved by the Governor and Cabinet.

2. Chlorination

Free chlorine levels in the cooling tower makeup water shall continuously be monitored, prior to insertion in the cooling towers. Sewage effluent used as makeup shall be treated if necessary to maintain a 1.0 mg/liter free chlorine residual after fifteen minutes contact time. Chlorination should occur at an efflent turbidity of 5 Nephelometric Turbidity Units or less.

3. Special Studies

Upon satisfactory demonstration to the Department that the number of viruses entering the towers in the effluent makeup can be reduced to an undetectable level with the use of a lesser amount of chlorination or alternate treatment, the above requirement may be altered. This demonstration may occur through performance of special studies approved by the Department. Alteration of the chlorination requirements must still insure adequate treatment for the control of bacterial growth in the cooling towers.

D. Water Discharges

1. Surface Water

a. Any discharges from the site stormwater/leachate treatment system via the emergency overflow structure which result from any event LESS than a ten-year, 24-hour storm (as defined by the U.S. Weather Bureau Technical Paper No. 40, or the DOT drainage manual, or similar documents) shall meet State Water Quality Standards, Chapter 17-3, FAC.

b. Sampling of water quality in the aeration pond, the cattail ponds, and an analysis of the tissues of the cattails utilized as part of the leachate/stormwater treatment system shall be conducted prior to pumping of leachate or stormwater through this system to verify background levels and concentrations of any metals, especially heavy metals, already present in the ponds or the vegetation. Within three months after commencement of stormwater/leachate pumping through this system, and quarterly thereafter, the pond waters and cattail tissues, as well as root detritus or other sediments on the bottom of the ponds shall again be sampled to determine the degree and effectiveness of heavy metal uptake treatment in this system, and for correlation with groundwater monitoring data. If analyses indicate that toxic levels of materials are present in the cattail tissues, root detritus, or other pond precipitates, then these materials shall be incinerated or otherwise removed from contact with the natural environment and groundwaters. Results of analyses conducted shall be sent to the Department for review of system effectiveness.

c. Leachate, stormwater, or other site wastewaters which are to be spray irrigated shall be treated to conform to any rules promulgated by the State for the land application of wastewaters in areas not commonly accessible to the public.

d. Cooling tower blowdown shall not be discharged to surface waters.

2. Groundwaters

a. All discharges to groundwaters, such as landfill leachate, shall be collected and treated as necessary, or otherwise be of high enough quality, to be able to meet the Water Quality Standards of Chapter 17-3.101, FAC, (Class I-B Groundwaters) at the boundary of the site.

b. If the groundwater monitoring system in the vicinity of the aeration/cattail ponds indicate that groundwater quality beyond the boundary of the site has been deteriorated by substances leaching from these ponds, then these ponds shall be lined or other Departmentally approved methods employed to reduce further leaching sufficient to insure attainment of groundwater quality standards at the boundary of the site.

3. Groundwater Monitoring Program

a. Sampling of the shallow aquifer groundwater quality shall be conducted in at least four wells in the site vicinity. One of these wells shall be up hydrologic slope from the landfill area to provide current background data; one shall be located in the immediate vicinity of the aeration/cattail ponds; and two shall be located down hydrologic slope from the landfill/spray irrigation areas. Specific location of these wells may be proposed by the applicant, but must be approved by the Department.

b. Operational background monitoring shall commence at least one year prior to operation of the resource recovery facility. Construction of monitoring wells and the collection of samples shall be in accordance with EPA recommended methods as contained in Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities (EPA/530/SW-611). The wells shall be deep enough to insure that groundwater samples can be obtained with the groundwater table elevation at its estimated lowest point and shall be protected from damage or destruction. Samples shall be analyzed in accordance with the methods described in Chapter 17-4, FAC. Analyses shall be performed by laboratories which are approved by the Department of Health and Rehabilitative Services to conduct analyses pursuant to Section 403.863, F.S., the State Public Water Supply Laboratory Certification Program.

c. The wells shall be monitored on a quarterly basis for the following parameters:

Conductivity	Arsenic	Selenium
Nitrates	Barium	Silver
Iron	Cadmium	Chlorides
COD	Chromium	pH
Nickel	Lead	Copper
Aluminum	Mercury	Zinc
Total Coliform Bacteria		

d. Reports shall be submitted in duplicate within 30 days of receipt of analysis results to the Department for distribution to the appropriate review personnel.

e. The monitoring program may be reviewed annually by the Department, and a determination made as to the necessity and extent of continuation of the program. Aspects of the program relating to sampling, monitoring, reporting, and related time schedules may be modified in accordance with the provisions of condition number XII.

E. Solid/Hazardous Waste

1. Operation of the associated landfill shall be done in accordance with all applicable portions of Chapter 17-7, FAC, including prohibitions, procedures for closing of the landfill, and final cover requirements, or, as provided in this condition (XIV.E.) in its entirety.

2. Putrescible wastes shall receive daily cover. No cover shall be required for the landfilling of only ash or construction/demolition debris. Daily cover shall consist of a six inch layer of compacted earth placed at the end of each working day.

3. Rodent and insect control shall be provided as necessary to protect the health and safety of site employees and the public. Pesticides used to control rodents, flies, and other vectors shall be as specified by the Florida Department of Agriculture and Consumer Services.

4. A monthly report shall be prepared detailing the amount and type (putrescible, special wastes, boiler residue, etc.) of materials landfilled at the site, and the treatment provided (see condition XIV.E.2. above). These reports shall be furnished to the DER Southwest District Office quarterly, commencing 120 days after the Resource Recovery becomes operational and is producing residues.

5. Unless approved by the Department with subsequent modification of conditions, this facility shall not accept materials currently defined as "Hazardous Wastes", i.e. pesticides, volatile or radioactive material, etc.

6. No putrescible wastes shall be placed below the maximum groundwater level unless permanent leachate controls are installed. Methodology for permanent leachate controls shall be submitted to the Department for review. Such methodology shall not be implemented until approved by the Department. In the absence of permanent leachate controls, demolition debris and other non-putrescible items (other than boiler residue) shall be utilized to separate the putrescible waste from the groundwater. Boiler residue may be placed below the maximum groundwater level without permanent leachate controls provided that the permittee demonstrates that the residue will not contribute to a violation of water quality criteria at the boundary of a zone of discharge extending 100 feet from the landfill perimeter. Fly ash shall not be placed below the maximum groundwater level without permanent leachate controls.

7. Separate cells and lifts shall be maintained for landfilling putrescible wastes.

8. All cells will be constructed to promote leachate drainage to a low end of the cell; all leachate formed at the low end of an active cell shall be pumped to the aeration pond for treatment.

9. A chemical analysis of the boiler residue shall be conducted within 30 days after commencement of operation, testing at the minimum for levels of Cadmium, Chromium, Zinc and Lead to determine the nature and potential toxicity or hazardousness of the materials created in the combustion process.

10. Results from the residue analysis shall immediately be sent to the Department and will be used to determine whether or not these materials constitute a "Hazardous Waste" as defined by Chapter 17-30, FAC; results of these analyses may also be used for correlation with groundwater monitoring information and in any subsequent modification of conditions.

11. If residue material are determined to be a "Hazardous Waste", then measures shall be taken to treat or dispose of the residues pursuant to rules promulgated by either Federal or State authorities.

12. If the nature of materials received at the facility becomes altered, either due to modification of conditions, i.e., the facility is allowed to incinerate already known hazardous wastes such as pesticides, or if groundwater monitoring reveals unusual groundwater conditions which may be attributable to the landfilling of this residue, then a subsequent analysis may be required at that time.

13. There shall be no discharge to the environment of polychlorinated biphenyl compounds.

F. Operational Safeguards

The overall design and layout of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions. The Federal Occupational Safety and Health Standards will be complied with during construction and operation. The safety standards specified under Section 440.56, Florida Statutes, by the Industrial Safety Section of the Florida Department of Commerce will be complied with during operation.

G. Transmission Lines

The directly associated transmission lines from the Resource Recovery Facility electric generators to the Florida Power Corporation Gandy Substation shall be kept cleared without the use of herbicides.

H. Noise

Operational noises shall not exceed local noise ordinance limitations nor those noise standards imposed by zoning.

State of Florida

Executive Director
DAVID L. SWAFFORD
(904) 488-7181

Public Service Commission

November 7, 1983

Received DER

NOV 9 1983

P.P.S

Mr. Hamilton S. Oven, Jr., P.E.
Administrator, Power Plant Siting
Department of Environmental Regulation
Twin Towers Office Building
2600 Blairstone Road
Tallahassee, Florida 32301

Dear Mr. Oven:

The attached orders constitute the Commission's final reports, as required by Section 403.507(1)(b) of the Power Plant Siting Act, on the applications of Pinellas and Hillsborough Counties for power plant certification.

As the orders indicate, the matter was handled in the form of a Proposed Agency Action. No person requested a hearing within the required time; therefore, the Commission's finding that a need exists for the proposed plants has become final.

Sincerely yours,

DAVID L. SWAFFORD
Executive Director

DLS/cd

CC: Commissioners
Electric & Gas Department
Legal Department
Department of Community Affairs
Hillsborough County
Pinellas County

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition by Pinellas County for determination of need for a solid waste-fired cogeneration power plant.)

DOCKET 830417-EU
ORDER NO. 12611
ISSUED: 10-14-83

The following Commissioners participated in the disposition of this matter:

GERALD L. GUNTER, Chairman
JOSEPH P. CRESSE
JOHN R. MARKS, III
KATIE NICHOLS
SUSAN LEISNER

NOTICE OF PROPOSED AGENCY ACTION

ORDER

BY THE COMMISSION:

Under the Florida Electrical Power Plant Siting Act, Section 403.501, Florida Statutes, the Commission is charged with the responsibility of determining whether construction of a proposed electrical generation facility is necessary to meet the present or expected need for electricity in all or part of Florida. Under the Act, the Department of Environmental Regulation must determine whether the proposed plant will comply with all relevant environmental standards and whether the proposed site for the plant is suitable for that use. Weighing all of these determinations, the Governor and Cabinet, sitting as the Power Plant Siting Board, ultimately determine whether approval will be granted for construction of the proposed plant.

Certification under the Act must be obtained for the construction of any generating facility greater than 50 MW, or for the expansion of any existing electrical power plant. Pinellas County currently owns an existing solid waste-fired power plant containing a single 50.9-megawatt (gross) turbine generator and two incinerator/boilers located near Pinellas Park in Pinellas County, Florida, and has an existing Power Plant Site Certification for the facility. Pinellas County proposes to construct and operate an additional incinerator/boiler, and a single 29-megawatt (gross) turbine generator facility at the same site. The proposed incinerator/boiler will be similar to the two incinerator/boilers currently owned by the County and will have the capacity to burn up to 1,050 tons per day of 5000 BTU per pound solid waste. This is a small power production facility within the meaning of PURPA and Rules 25-17.80 through 25-17.87, Florida Administrative Code.

The steam generated by the proposed incinerator/boiler plant will be used to drive a single 29-megawatt (gross) turbine generator which will produce electricity that will be sold to Florida Power Corporation. The projected in-service date for the unit is July 1986, with construction scheduled to begin in the summer of 1984. The existing facility presently is selling an average of 38-40 MW a year to Florida Power Corporation. With increasing fuel supply and capacity expansion, the facility will ultimately have about 60 MW available for sale to Florida Power Corporation in mid-1990's. By a petition filed on August 29, 1983, Pinellas County seeks an affirmative determination of need for the 29 MW generating plant.

While the Power Plant Siting Act requires the Commission to determine whether a need exists for the proposed generating facility, the purpose of the Commission's need determination is

to protect electric utility ratepayers from unnecessary expenditures. The statute lists four criteria the Commission must consider in determining need:

1) the need for electrical system reliability and integrity;

2) the need for adequate electricity at a reasonable cost;

3) whether the proposed plant is the most cost effective alternative available; and

4) conservation measures taken or reasonably available that might mitigate the need for new plant (Sec. 403.519, F.S.)

Congress and the Florida Legislature have determined that cogeneration and small power production should be encouraged on the premise that they constitute alternate sources of power that either displace production of fossil fuel electricity or use fossil fuels more efficiently. Moreover, the proliferation of cogeneration and small power production facilities may obviate the need for construction of additional generating facilities by electric utilities. Therefore, in the present context, we find that the County's proposed small power production facility will increase electrical system reliability and integrity and will maintain the supply of adequate electricity at a reasonable cost while reducing our dependence on fossil fuel. When viewed as an alternative to construction of additional generating facilities by electric utilities, and considering the permissible level of payments to small power producers outlined in Rules 25-17.80 through 25-17.87, Fla. Admin. Code, the proposed facility is the most cost effective alternative available. Finally, construction of the plant is a conservation measure which we have encouraged precisely because it may mitigate the need for additional construction by electric utilities. Therefore, the relief sought in this petition, an affirmative determination of need, will be and the same is hereby granted. It is, therefore,

ORDERED by the Florida Public Service Commission that this Order constitute the final report required by Section 403.507(1)(b), Florida Statutes, the report concluding that a need exists, within the meaning of Section 403, Florida Statutes, for the construction of the 29 MW generating facility proposed by Pinellas County, Florida. It is further

ORDERED that a copy of this Order be furnished to the Department of Environmental Regulation, as required by Section 403.507(1)(b), Florida Statutes. It is further

ORDERED that any person adversely affected by the action proposed herein may file a petition for a formal proceeding, as provided in Rule 25-22.29, within 21 days of the date of this order, November 4, 1983, in the form provided by Rule 25-22.36(7)(a) and (f). It is further

ORDERED that in the absence of such a petition, this Order shall become effective and final as provided by Rule 25-22.29(6), as stated in a subsequent order.

By Order of the Florida Public Service Commisison, this 14th day of OCTOBER 1983.

(S E A L)

Steve Tribble

BED

STEVE TRIBBLE
COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition by Hillsborough County for determination of need for a solid waste-fired cogeneration power plant.	) DOCKET 830419-EU) ORDER NO. 12610) ISSUED: 10-14-83)	

The following Commissioners participated in the disposition of this matter:

GERALD L. GUNTER, Chairman
JOSEPH P. CRESSE
JOHN R. MARKS, III
KATIE NICHOLS
SUSAN W. LEISNER

NOTICE OF PROPOSED AGENCY ACTION

ORDER

BY THE COMMISSION:

Under the Florida Electrical Power Plant Siting Act, Section 403.501, Florda Statutes, the Commission is charged with the responsibility of determining whether construction of a proposed electrical generation facility is necessary to meet the present or expected need for electricity in all or part of Florida. Under the Act, the Department of Environmental Regulation must determine whether the proposed plant will comply with all relevant environmental standards and whether the proposed site for the plant is suitable for that use. Weighing all of these determinations, the Governor and Cabinet, sitting as the Power Plant Siting Board, ultimately determine whether approval will be granted for construction of the proposed plant.

Certification under the Act must be obtained for the construction of any generating facility greater than 50 MW, and may be obtained for a smaller facility. Hillsborough County has elected to seek certification of its proposed 39 MW small power production facility, by a petition filed on August 30, 1983.

Hillsborough County proposes to construct and operate a solid waste-fired electrical generating facility using 1,200 tons of municipal solid waste per day as its primary fuel source. In anticipation of its expected needs, Hillsborough County seeks certification for an ultimate site electrical generating capacity of 39 megawatts (gross), using 1,600 tons per day of municipal solid waste fuel. This is a small power production facility within the meaning of PURPA and Rules 25-17.80 through 25-17.87, Fla. Admin. Code.

The proposed plant will utimately produce 39-megawatts of power which will be sold to Tampa Electric Company. The projected in-service date for the unit is July, 1987, with construction scheduled to begin in the summer of 1984. In its first year of production, the plant will make available for sale to Tampa Electric, about 13 MW on an annual average basis. Generation will continue to increase as the supply of fuel increases and the ultimate capacity available for sale to Tampa Electric will reach about 30 MW on an annual average basis in the late 1990's.

While the Power Plant Siting Act requires the Commission to determine whether a need exists for the proposed generating facility, the purpose of the Commission's need determination is to protect electric utility ratepayers from unnecessary expenditures. The statute lists four criteria the Commission must consider in determining need:

1) the need for electrical system reliability and integrity;

2) the need for adequate electricity at a reasonable cost;

3) whether the proposed plant is the most cost effective alternative available; and

4) conservation measures taken or reasonably available that might mitigate the need for new plant (Sec. 403.519, F.S.)

Congress and the Florida Legislature have determined that cogeneration and small power production should be encouraged on the premise that they constitute alternate sources of power that either displace production of fossil fuel electricity or use fossil fuels more efficiently. Moreover, the proliferation of cogeneration and small power production facilities may obviate the need for construction of additional generating facilities by electric utilities. Therefore, in the present context, we find that the County's proposed small power production facility will increase electrical system reliability and integrity and will maintain the supply of adequate electricity at a reasonable cost while reducing our dependence on fossil fuel. When viewed as an alternative to construction of additional generating facilities by electric utilities, and considering the permissible level of payments to small power producers outlined in Rules 25-17.80 through 25-17.87, Florida Adminstrative Code, the proposed facility is the most cost effective alternative available. Finally, construction of the plant is a conservation measure which we have encouraged precisely because it may mitigate the need for additional construction by electric utilities. Therefore, the relief sought in this petition, an affirmative determination of need, will be and the same is hereby granted. It is, therefore,

ORDERED by the Florida Public Service Commission that this Order constitute the final report required by Section 403.507(1)(b), Florida Statutes, the report concluding that a need exists, within the meaning of Chapter 403, Florida Statutes, for the construction of the 39 MW generating facility proposed by Hillsborough County, Florida. It is further

ORDERED that a copy of this Order be furnished to the Department of Environmental Regulation, as required by Section 403.507(1)(b), Florida Statutes. It is further

ORDERED that any person adversely affected by the action proposed herein may file a petition for a formal proceeding, as provided in Rule 25-22.29, within 21 days of the date of this order, November 4, 1983, in the form provided by Rule 25-22.36(7)(a) and (f). It is further

ORDERED that in the absence of such a petition, this Order shall become effective and final as provided by Rule 25-22.29(6), as stated in a subsequent order.

By Order of the Florida Public Service Commisison, this 14th day of OCTOBER 1983.

(S E A L)

Steve Tribble

STEVE TRIBBLE
COMMISSION CLERK

BED

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Pinellas County for determination of need for a solid waste-fired cogeneration power plant.	DOCKET NO. 830417-EU ORDER NO. 12677 ISSUED: 11-14-83

CONSUMMATING ORDER

BY THE COMMISSION:

By Order No. 12611, this Commission proposed to take certain action, subject to a Petition for Formal Proceeding as provided in Rule 25-22.29, Florida Administrative Code. No response has been filed to the order and it has become effective. It is, therefore,

ORDERED by the Florida Public Service Commission that this Order constitute the final report required by Section 403.507(1)(b), Florida Statutes, the report concluding that a need exits, within the meaning of Section 403, Florida Statutes, for the construction of the 29 MW generating facility proposed by Pinellas County, Florida. It is further

ORDERED that a copy of this Order be furnished to the Department of Environmental Regulation, as required by Section 403.507(1)(b), Florida Statutes. It is further

ORDERED that Order No. 12611 be and the same is hereby determined to be effective and final on November 4, 1983, as provided in Rule 25-22.29(6), Florida Administrative Code. It is further

ORDERED that this docket be closed.

By ORDER of the Florida Public Service Commission, this day 14th of November, 1983.

Steve Tribble
COMMISSION CLERK

(S E A L)

BED

STATE OF FLORIDA
DEPARTMENT OF COMMUNITY AFFAIRS
DIVISION OF LOCAL RESOURCE MANAGEMENT

BOB GRAHAM
Governor

JOHN M. DeGROVE
Secretary

Received DER

NOV 17 1983

PPS

November 17, 1983

Mr. Hamilton Oven, Jr.
Department of
Environmental Regulation
2600 Blairstone Road
Tallahassee, Florida 32301

Dear Mr. Oven:

Attached is the Department of Community Affairs' report on Pinellas County's Resource Recovery Facility (Phase II) power plant site certification application for an additional 29 megawatt generating capacity. Pursuant to Section 403.507, Florida Statutes, the report assesses the compatibility of the proposed electric power plant expansion with the State Comprehensive Plan.

After reviewing the application against the stated goals, objectives and policies of the State Comprehensive Plan, we find that the proposed resource recovery facility expansion is compatible with the State Comprehensive Plan.

If you have any questions regarding this report, please contact Mr. Paul Darst at (904) 488-4925.

Sincerely,

George W. Griffith
Bureau Chief

GWG:jmh

Attachment

Power Plant Siting Report:

PINELLAS COUNTY RESOURCE RECOVERY FACILITY EXPANSION

(PHASE II) APPLICATION FOR SITE CERTIFICATION

Submitted to:

FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

NOVEMBER 1983

Prepared by:

FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS
BUREAU OF LAND AND WATER MANAGEMENT
POWER PLANT SITING PROGRAM

INTRODUCTION

Pursuant to sections 403.501-403.517 of the Florida Statutes, known as the Florida Electrical Power Plant Siting Act, the Florida Department of Community Affairs (DCA) is required to review a power plant site application in order to determine its compatibility with the State Comprehensive Plan (SCP) and to submit that review to the Florida Department of Environmental Regulation (DER). The SCP is authorized under the State Comprehensive Planning Act of 1972 which is intended to "provide long-range guidance of the orderly social, economic, and physical growth of the state" (section 23.0114, F.S.). To achieve this end, the SCP sets forth goals, objectives and policies. The task of the DCA is to determine whether or not the construction and operation of the proposed power plant would be compatible with these goals, objectives and policies. This report represents that determination and is the report specified in paragraph 403.507(1)(a), F.S.

METHOD OF EVALUATION FOR COMPATIBILITY

Neither the Power Plant Siting Act nor the SCP contains any articulated process or methodology by means of which the DCA is to conduct its review of the site certification application; however, over the years the DCA has developed a process by which the predicted impacts of the power plant are compared directly to relevant goals, objectives and policies in the SCP. In the SCP, goals consist of broad statements of purpose, which are usually inappropriate for use as evaluative tools. An objective is defined in the SCP as "a specific accomplishment, or series of accomplishments, necessary to the satisfactory pursuit of a goal." Objectives are, therefore, more concrete than goals and can occasionally serve as evaluative criteria. Policies, however, constitute the most specific and tangible statements in the SCP. For this reason, policies are the most appropriate level at which to compare power plant site certification applications for consistency with the SCP.

The SCP contains literally hundreds of policies grouped under major element headings, such as Energy, Water, and Growth Management. Some of these elements are more relevant for review of site certification applications than others; nonetheless, the entire SCP was reviewed for policies and objectives relevant to this application. This comprehensive review is necessary because each proposed new power plant may have unique characteristics and impacts associated with it. Comparison of the expected impacts of the proposed power plant with the selected policies and objectives of the SCP enables the identification of specific consistencies and inconsistencies. Determination of consistency necessarily involves a subjective component; however, an effort was made to carry out this operation as fairly and as rigorously as possible.

BRIEF PROJECT DESCRIPTION AND HISTORY

Over four years ago, on July 20, 1979, the Governor and Cabinet of Florida, sitting as the Power Plant Siting Board, certified Phase I of the Pinellas County Resource Recovery Facility. Below is a brief chronology of subsequent events significant to the DCA consistency review:

July 20, 1979.....Phase I power plant site application with Conditions of Certification approved by Power Plant Siting Board.

July 26, 1983.....Phase II power plant site application received by DER.

August 9, 1983.....Phase II application found incomplete by DER.

September 6, 1983...Phase II revised application found complete by DER.

October 14,1983.....Positive Determination of Need for expansion of resource recovery facility (phase II) given by Florida Public Service Commission.

October 25, 1983....Site visit by DCA power plant siting staff.

The Phase I facility combined solid waste disposal, resource recovery and electrical power generation in one plant. Its functions may be more precisely described as follows:

1. Disposal and reduction of raw, unprocessed municipal solid waste through mass-burn incineration.

2. Generation of 50 megawatts of electrical power from incineration of solid waste. Part of this power is used for plant operation, and the remainder is sold to Florida Power Corporation.

3. Recovery of ferrous and nonferrous metals.

4. Utilization of treated municipal waste water for plant cooling water.

This multipurpose facility has reportedly worked well and achieved the county's objectives for it. Now, however, less than four years later, the county proposes to add another boiler and ancillary equipment to the two boilers built during Phase I. This additional capacity is needed to keep pace with the county's burgeoning growth and consequent greatly increased production of solid waste. Accordingly, the county prepared another power plant site certification application (Phase II) and submitted it to the DER for certification review.

The Phase II expansion proposes the addition of a third boiler, electrostatic precipitator, turbine-generator, stack, cooling tower expansion and other associated equipment. Upon completion of the Phase II expansion, the plant will then comprise three boilers, three electrostatic precipitators,two turbine-generators and two stacks as the main visual structual components on the site. The site itself is surrounded by landfills, industrial and manufacturing operations and undeveloped land. The nearest residential development (The Lakes subdivision) is located southwest of the site within the city limits of Pinellas Park. This subdivision lies approximately 500 feet from the nearest landfill, which accepts nonputrescible wastes only.

CONSISTENCY/INCONSISTENCY WITH THE SCP

Comparison of the expected impacts of the proposed facility with the policies and objectives of the SCP yielded numerous points of consistency and inconsistency. The more significant points of consistency and inconsistency fall into eight discussion areas, as presented below. Each discussion area begins with a listing of the SCP policy, or related policies, with which the proposed facility would either be consistent or inconsistent.

1. Alternative energy technologies and fuels

Energy Element Policy No. 2--Diversify Florida's energy sources by encouraging a safe and orderly transition from diminishing petroleum resources to alternative energy technologies as they become available.

Energy Element Policy No. 4--Begin the orderly transition from present non-renewable fuels to renewable energy sources and consumption patterns.

Utilities Element Policy No. 46--Encourage energy recovery from solid wastes, where feasible.

Utilities Element Policy No. 57--Encourage research and development of alternative methods for electrical power production.

All of these policies encourage alternative energy technologies and fuels. Municipal solid waste can be regarded as a renewable energy source since it consists primarily of paper, wood, food scraps, lawn trimmings, etc., which are direct or indirect products of photosynthesis. The proposed resource recovery facility expansion is clearly consistent with the above policies.

2. Resource conservation and recovery

Land Development Element Policy No. 18--Encourage resource conservation and, where efficient, the recovery and reuse of resources, particularly those that are limited and diminishing in supply.

Land Development Element Policy No. 23--Seek alternatives to conventional methods of solid waste incineration which use resources inefficiently and create air pollution.

Utilities Element Policy No. 17--Encourage energy and resource conservation and, where feasible, the recovery and reuse of resources, particularly those in limited supply.

These policies address the subject of resource conservation and recovery. Policies No. 18 and 17 above, which are almost identical, stress resource recovery and reuse. The proposed project recovers ferrous and nonferrous metals from municipal solid waste. Policy No. 23 is unclear as to what constitutes "conventional methods of solid waste incineration," but it is assumed in this report that this policy is specifically addressing incineration without resource recovery or energy production. The proposed facility appears to be consistent with the above policies of the SCP.

3. Reuse of wastewater

Land Development Element Policy No. 63--Encourage flexible wastewater treatment strategies that recognize regional or local conditions and requirements.

Utilities Element Policy No. 29--Encourage the development of innovative techniques to augment water supplies available for domestic, agricultural, and industrial uses.

Utilities Element Policy No. 38--Consider treated wastewater as a valuable resource and make every reasonable effort to implement land spreading, agricultural and industrial uses, and recycling uses of water for other than human consumption.

> Water Element Policy No. 24--Recognize wastewater as a valuable resource and establish the goal of recycling and reuse of wastewater, tailwater, and stormwater consistent with energy-conservation objectives, existing development, and maintenance of the integrity of natural ecosystems to the extent practical.

These policies encourage innovative uses of wastewater. The proposed resource recovery facility expansion will use tertiary-treated wastewater from the nearby city of Largo for cooling purposes. The proposed facility is consistent with these policies.

4. Utilization of existing power plants

> Utilities Element Policy No. 55--Favor the provision of electrical power to the maximum extent feasible by using existing power plants with excess capacity rather than by developing new plants.

Electrical power production is a secondary objective of the proposed project. The addition of a third boiler will provide an approximate increase of 29 megawatts of electrical generating capacity. The proposed facility is technically not consistent with this policy. However, the following points should be noted: (1) this is not merely a new power plant, but a multipurpose facility that produces electrical power as a byproduct; (2) it represents an expansion of an existing power-generating facility, rather than a new facility; (3) the proposed facility has received a positive Determination of Need from the Florida Public Service Commission; and (4) construction of this facility may help delay the need for a new base-load electrical power plant.

5. Aesthetics

> Utilities Element Policy No. 8--Design utility installation and distribution facilities that are aesthetically pleasing as well as economically and technologically feasible.

Aesthetics can be a significant concern when disposing of large quantities of solid waste or generating electrical power. Landfills, especially those containing putrescible wastes, are unsightly, frequently produce nuisance odors, and often attract large numbers of scavenger animals, such as sea gulls, crows, vultures and rodents. As for power plants, their stacks and towers are visually intrusive.

This project attempts to reduce the volume of raw solid waste and the negative aesthetic impacts of the landfill. The end product (primarily ashes) of the resource recovery facility is

inert and nonputrescent. The electrical-power-generating components of the facility will still have negative aesthetic impacts; however, the net aesthetic impact should be positive and therefore consistent with this policy.

6. Flooding

Land Development Element Policy No. 134--Require floodproofing for nonresidential development and public facilities located in 100-year floodplain areas.

The proposed facility is located in an identified floodprone area. The most recent Flood Insurance Rate Map for the unincorporated areas of Pinellas County indicates the site lies in a zone inundated by the 100-year flood event at a base flood elevation of 10 feet. Because the proposed facility structures will be constructed at an elevation of 12 feet, the project is consistent with this policy.

7. Land Use Compatibility

Health Element Objective No. L--Grossly incompatible land use mixtures, and their consequent environmental health hazards, should be precluded.

Housing and Community Development Element Policy No. 65--Encourage mixed-use development when such uses are compatible.

The above objective and policy address the subject of land use compatibility. As mentioned previously, there is a residential area (The Lakes subdivision) developing close to the southwest boundary of the proposed facility, near landfill areas. In fact, new residential construction in The Lakes is occurring approximately 500 feet from an active landfill. Residential areas and landfills are not usually considered compatible land uses. This is definitely not the kind of mixed-use development envisioned in policy No.65 above. But there are other facts to consider here: for one thing, the Phase I facility has been operating for over three years now; therefore, potential home buyers should be well aware of the presence of this facility nearby. For another thing, in 1979 the Power Plant Siting Board determined that the Phase I facility did conform to local land-use plans and zoning ordinances. It is also noted that this residential expansion is occurring in an area under the jurisdiction of the city of Pinellas Park. The applicant, Pinellas County, cannot control development in Pinellas Park, although the county has attempted to coordinate with the city in an effort to mitigate adverse impacts to residential areas within the city.

The plant site is otherwise surrounded by vacant land and industrial/manufacturing uses and, in fact, the overall character of the surrounding area is primarily industrial/manufacturing, which is a compatible land use type.

Because of the presence of residential development near landfill areas of the resource recovery facility, the proposed facility expansion cannot be said to be totally consistent with the stated objective and policy; however, the aforementioned mitigating factors offset the inconsistency somewhat. It is further noted that Pinellas County is one of the most urbanized and densely populated counties in the state; therefore, potential landfill and resource recovery sites are difficult to find as well as being expensive.

8. Air Pollution

Health Element Objective E--The degradation of air caused by development should be minimized.

Land Development Element Policy No. 23--Seek alternatives to conventional methods of solid waste incineration which use resources inefficiently and create air pollution.

The utilization of a third boiler will create additional air pollution, although particulate material will be removed from boiler emissions by an additional electrostatic precipitator. The expected incremental increase in air pollution generated by the expanded facility is relatively minor. The proposed facility expansion is, however, still inconsistent with these policies.

Conclusion

In conclusion, we find that the proposed facility would be consistent with the following element policies:

Energy Nos. 2 and 4
Land Development Nos. 18 and 63
Utilities Nos. 8, 17, 29, 38, 46 and 57

The proposed facility would be inconsistent with the following element objectives and policies:

Health Objectives E, L
Housing and Community Development No. 65
Utilities No. 55

The facility expansion would be consistent with a portion of Land Development Element Policy No. 23 while being inconsistent with another portion of the same policy.

In making our overall judgment on compatibility, we place particular emphasis on these pertinent facts:

1. This is an expansion of an existing facility. Most of its impacts are already known and have been mitigated. According to the Phase II site certification application, no additional facility expansion (i.e., no more boilers) will occur at this site in the future.

2. In 1979 the DCA found Phase I of the Pinellas County Resource Recovery Facility to be consistent with the State Comprehensive Plan. Three years of successful operation of that facility have affirmed that earlier conclusion.

3. We do not find the incompatible land uses at the southwest boundary of the site (landfill and residential uses) to be consistent with the directives of the SCP. However, as explained in the discussion under Health Element Objective L, there are several mitigating circumstances that reduce the magnitude of this impact.

In our opinion the increased negative land use (and other) impacts generated by the proposed facility expansion are outweighed by the benefits the expansion would provide in--(1) reducing the amount of landfill area needed, (2) recovering metals, and (3) producing electrical power.

The Florida Department of Community Affairs therefore finds the proposed facility to be compatible with the State Comprehensive Plan.

January 25, 1984

Mr. William E. Williams
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301

RE: Pinellas County Resource Recovery Facility
PA 83-18, DOAH Case No. 83-2355

Dear Mr. Williams:

Attached please find a copy of the "Notice of Certification Hearing" for the Pinellas County Resource Recovery Facility as sent to the newspapers on January 24, 1984.

Sincerely,

Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting Section

HSOjr/sb

cc: All parties

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Notice has been furnished by U.S. Mail this 25th day of January, 1984 to the following named persons:

VAN B. COOK
SPN 72241
Chief Assistant County Attorney
315 Court Street
Clearwater, FL 33516

JOHN BOTTCHER, ESQUIRE
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

LARRY KEESEY, ESQUIRE
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, FL 32301

STEPHEN A. WALKER, ESQUIRE
SWFWMD
2379 Broad Street
Brooksville, FL 33512-9712

BONNIE DAVIS, ESQUIRE
Public Service Commission
Fletcher Building
101 East Gaines Street
Tallahassee, FL 32301-8153

HAMILTON S. OVEN, JR., P.E.
Administrator
Power Plant Siting Section
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

NOTICE OF CERTIFICATION HEARING ON AN APPLICATION TO CONSTRUCT AND OPERATE AN ELECTRICAL POWER PLANT ON A SITE TO BE LOCATED NEAR PINELLAS PARK, FLORIDA

1. Application number 83-18 for certification to authorize construction and operation of an addition to an electrical power plant near Pinellas Park, Florida, is now pending before the Department of Environmental Regulation, pursuant to the Florida Electrical Power Plant Siting Act, Part II, Chapter 403, F.S.

2. The resource recovery facility site is located in Pinellas County within the existing Pinellas County Resource Recovery Facility property 2 miles northeast of Pinellas, Park, south of 114th Avenue, north and west of 28th Street North. The proposed additional plant will consist of one 1050 ton per day solid waste-fired unit with a 29 MW turbine generator. The power plant will be owned by Pinellas County.

3. The Department of Environmental Regulation has evaluated the application for the proposed power plant. Certification of the plant would allow its construction and operation. The application and the Department's analysis of the impacts of the plant are available for public inspection at the following addresses:

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
Southwest District Office
7601 Highway 301 North
Tampa, Florida 33610

PINELLAS COUNTY
Department of Solid Waste Management
2800 110th Avenue North
St. Petersburg, Florida 33702

HERNANDO COUNTY DEPARTMENT OF PLANNING AND ZONING
156 East Jefferson
Brooksville, Florida 33512

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 Broad Street (South U.S. 41)
Brooksville, Florida 33512

4. Pursuant to Section 403.508, Florida Statutes, the certification hearing will be held by the Division of Administrative Hearings on February 29, 1984, at 10:00 a.m., at the Pinellas County Courthouse, 5th Floor Assembly Room, 315 Court Street, Clearwater, Florida, in order to take written or oral testimony on the effects of the proposed electrical power plant or any other matter appropriate to the consideration of the site. Need for the facility has been predetermined by the Public Service Commission at a separate hearing. Written comments may be sent to William Williams (Hearing Officer) at Division of Administrative Hearings, 2009 Apalachee Parkway, Tallahassee, Florida, 32301, on or before February 21, 1984.

5. Pursuant to 403.508(4), F.S.: "(a) Parties to the proceeding shall include: the applicant; the Public Service Commission; the Division of State Planning; the water management district as defined in Chapter 373, in whose jurisdiction the proposed electrical power plant is to be located; and the Department. (b) Upon the filing with the Department of a notice of intent to be a party at least 15 days prior to the date set for the land use hearing, the following shall also be parties to the proceeding:

1. Any county or municipality in whose jurisdiction the proposed electrical power plant is to be located.

2. Any state agency not listed in paragraph (a) as to matters within its jurisdiction.

3. Any domestic non-profit corporation or association formed in whole or in part to promote conservation or natural beauty; to protect the environment, personal health, or other biological values; to preserve historical sites; to promote consumer interests; to represent labor, commercial or industrial groups; or to promote orderly development of the area in which the proposed electrical power plant is to be locate.

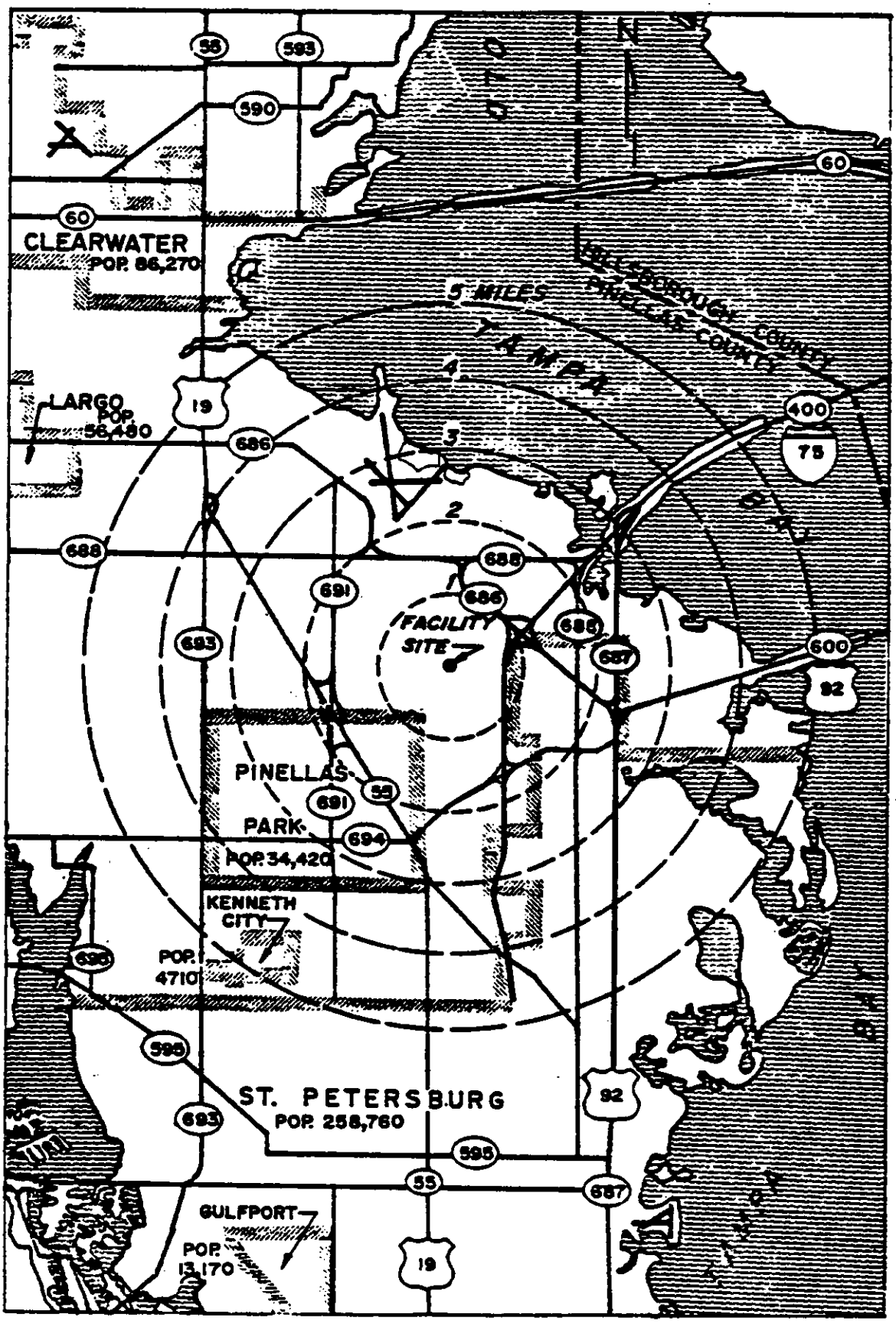
(c) Notwithstanding paragraph (4)(d), failure of an agency described in subparagraphs (4)(b)1 and (4)(b)2 to file a notice of intent to be a party within the time provided herein shall constitute a waiver of the right of the agency to participate as a party in the proceeding.

(d) Other parties may include any person, including those persons enumerated in paragraph (4)(b) who failed to timely file a notice of intent to be a party, whose substantial interests are affected and being determined by the proceeding and who timely file a motion to intervene pursuant to Chapter 120, F.S., and applicable rules. Intervention pursuant to this paragraph may be granted at the discretion of the designated hearing officer and upon such conditions as he may prescribe any time prior to 15 days before the commencement of the certification hearing.

(3) Any agency whose properties or works are being affected pursuant to s.403.509(2) shall be made a party upon the request of the department of the applicant.

6. Those wishing to intervene in these proceedings must be represented by an attorney or other person who can be determined to be qualified to appear in administrative proceedings pursuant to Chapter 120, F.S., or Chapter 17-1.21, FAC.

FIGURE 2.2.a.



STUDY AREA

January 25, 1984

Mrs. Liz Cloud
Bureau of Administrative Code
Department of State
The Capitol
Tallahassee, Florida 32301

Dear Mrs. Cloud:

I would appreciate your publication of the enclosed Notice of a Public Hearing and a Notice of Modification in the February 3, 1984, issue of the Florida Administrative Weekly.

If you have any questions, please let me know. I appreciate your assistance and cooperation.

Sincerely,

Geneva M. Hartsfield
Administrative Assistant
Office of the Chairman
Environmental Regulation
Commission

GMH/HSOjr/sb

Enclosures: Original and one copy of a Public Notice of Hearing
Original and one copy of a Notice of Modification

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

IN RE: PINELLAS COUNTY RESOURCE RECOVERY PROJECT Application for Power Plant Site Certification	)))))	CASE NO. 83-2355

NOTICE OF PREHEARING CONFERENCE
AND HEARING

Please take notice that this matter has been set for a prehearing conference at 1:00 p.m., January 27, 1984, Division of Administrative Hearings, The Oakland Building, 2009 Apalachee Parkway, Tallahassee, Florida 32301, and the certification hearing has been set for February 29, 1984, at 10:00 a.m. in the Pinellas County Courthouse. The detailed notice required by Chapter 17-17 will be published by the Department in the near future.

John Bottcher
Attorney

2600 Blair Stone Road
Tallahassee, Florida 32301

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO.

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) Buck Oven - Room 523	INITIAL	DATE
2.	INITIAL	DATE
3.	INITIAL	DATE
4.	INITIAL	DATE

REMARKS:

INFORMATION
- REVIEW & RETURN
- REVIEW & FILE
- INITIAL & FORWARD

DISPOSITION
- REVIEW & RESPOND
- PREPARE RESPONSE
- FOR MY SIGNATURE
- FOR YOUR SIGNATURE
- LET'S DISCUSS
- SET UP MEETING
- INVESTIGATE & REPT
- INITIAL & FORWARD
- DISTRIBUTE
- CONCURRENCE
- FOR PROCESSING
- INITIAL & RETURN

FROM: John Bottcher

DATE 1-24-84

PHONE 8-9730

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Notice of Prehearing Conference and Hearing has been furnished by U.S. Mail this 27th day of January, 1984 to the following named persons:

HAMILTON S. OVEN, JR., P.E.
Administrator
Power Plant Siting Section
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

LARRY KEESEY, ESQUIRE
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, Florida 32301

STEPHEN A. WALKER, ESQUIRE
SWFWMD
2379 Broad Street
Brooksville, Florida 33512-9712

BONNIE DAVIS, ESQUIRE
Public Service Commission
Fletcher Building
101 East Gaines Street
Tallahassee, Florida 32301-8153

January 18, 1984

Mr. Dan Williams, Assistant District Manager
State Department of Environmental Regulation
Southwest District Office
7601 Highway 301 North
Tampa, FL 33610-9544

Re: Power Plant Siting Certification (PPSC) #PA 78-11

Dear Mr. Williams:

Enclosed herewith is the report for the fourth quarter of 1983 for the Pinellas County Solid Waste System. It is in accordance with Appendix "A", page of the PPSC.

The same footnotes attached to our last report apply. A copy of them is enclosed for your information.

Very truly yours,

Michael J. Rudd
Solid Waste Operations Manager

MJR:WHP:ltl
Encls
cc: Buck Oven, DER
Gene E. Jordan, Dir, PW&U
W. W. Dasher, Dir, PW Opns
W. Gray Dunlap, County Attorney

bcc: HDR

QUARTERLY REPORT

FOURTH QUARTER 1983

(All Figures Shown in Tons)

	INTAKE	OCT 1983	NOV 1983	DEC 1983
1.	To Plant	56,094.63	53,779.09	55,210.95
2.	To Landfill	11,048.02	8,785.86	4,004.43
3.	To Mini Station	179.86	244.86	307.15
4.	To Tire Splitter	188.59	144.68	116.67
5.	Wells Bros.	-0-	-0-	-0-
6.	Toytown	-0-	-0-	-0-
	TOTAL	67,511.10	62,954.49	59,639.20
	REHANDLED MATERIALS			
11.	Residue to Landfill	8,798.46	257.32	46.38
12.	Reject to Landfill	6.40	6.70	18.32
13.	Mini Station to Landfill	179.86	244.86	307.15
14.	Aggregate to Landfill	5,698.25	5,211.71	1,030.85
15.	Recovered Metals	3,609.09	4,174.79	2,055.16
	TOTAL	18,292.06	9,895.38	3,457.86
	Total Landfilled Materials: Sum 2, 11, 12, 13, & 14	25,730.99	14,506.45	5,407.13

Table Notes

1. All wastes deemed "processible", and arriving in self-unloading vehicles are deposited in the intake room of the Resource Recovery Plant.

2. Wastes arriving in vehicles requiring hand unloading, loads observed as containing unprocessible wastes, and wastes diverted from the plant for any reason are sent to the landfill inside the landfill there are three possible destinations: Class I for putrescible, Class III for brush/ construction/trash wastes, and demolition for non-organic rubble. Based on operating volumes, there are occasions where destinations are consolidated wastes are treated as required for the more difficult content; e.g., brush is covered daily when mixed with putrescible.

3. Wastes arriving in small quantities are unloaded at the mini station, consolidated in large containers, and then moved to the plant or landfill.

4. The County operates an isolated and unrelated program to split, bale, and transport used tires for artificial reef construction. Tires enter the system through the single scalehouse point.

11. Gross residue materials (after combustion) is the raw stock for the plant's material recovery section. In addition, materials remaining after separation into streams having value (metals and large items still containing some metal, which can be sold), and streams having little value (can be given away), are removed at County cost and placed in the landfill. There is no additional treatment per se.

12. Reject materials originate in the intake room of the Plant and are removed prior to combustion. They do not contain putrescible wastes. Rejects are landfilled in either the Class III or the Class I landfill areas.

13. Materials deposited in the mini station are normally transferred to the landfill (Class I) but occasionally to the Plant if there is excess capacity available.

14. Aggregate materials are fine almost exclusively inorganic and considered suitable for road building purposes. These materials are stockpiled or used for haul road construction at the landfill. It is also being used for interim cover.

BOARD OF COUNTY COMMISSIONERS
PINELLAS COUNTY, FLORIDA
315 COURT STREET
CLEARWATER, FLORIDA 33516

COMMISSIONERS

JOHN CHESNUT, JR., CHAIRMAN
BRUCE TYNDALL, VICE-CHAIRMAN
GABRIEL CAZARES
CHARLES E. RAINEY
BARBARA SHEEN TODD

W. GRAY DUNLAP
COUNTY ATTORNEY

January 18, 1984

Received DER

JAN 23 1984

P P S

Mr. William E. Williams
Division of Administrative Hearings
2009 Apalachee Parkway
Tallahassee, FL 32301

Dear Mr. Williams:

Enclosed for filing please find an original and one copy of Pinellas County's Motion to expedite the final certification hearing and Notice of Appearance required by Chapter 403, Part II, Florida Statutes.

By way of background, Pinellas County applied in October 1978 for certification of a steam electric generating, resource recovery facility at a site about one mile northeast of the town of Pinellas Park on the County's existing Bridgeway Acres Phase I landfill tract. The site was certified by the Governor and Cabinet on July 20, 1979. The proposed project will be a third resource recovery facility boiler which could use up to 1050 tons per day of refuse as fuel. The proposed boiler expansion will increase the total solid waste processing capacity of the plant to 3150 tons per day. The steam from the new boiler will be sent to a turbine generator increasing the gross capacity of the plant by 29 MW (gross) from 50.6 MW to 79 MW (gross). The previously certified site will not be expanded by this proposed project.

As indicated in my Motion, we are requesting a pre-hearing conference during the week of January 30th at such time and place in Tallahassee as is convenience to you. The County can attend such a conference upon 48 hours advance notice. I am currently in the process of preparing proposed stipulations for submittal to and consideration by DER's attorney, John Bottcher. Additionally, we are requesting a certification hearing during the week of February 27th at such time and place as is convenient to you. I can make facilities available for the said hearing here in Clearwater at the following address:

Pinellas County Courthouse
5th Floor Assembly Room
315 Court Street
Clearwater, Florida

I anticipate the hearing would take no longer than one day.

I have contacted counsel for DER, Department of Community Affairs, Southwest Florida Water Management District, and the Public Service Commission regarding this Motion and proposed pre-hearing and hearing dates and have not been advised by any of them that these matters are objectionable.

Counsel for DER advised me that the required public notices can be prepared for publication within a few days of their being notified of a firm hearing date and location.

Thank you for your consideration of this Motion. If you have any questions or desire additional information, please contact me.

Respectfully submitted:

Van B. Cook

VAN B. COOK
Assistant County Attorney

VBC:mhc

enclosures

1474q

cc: Hamilton S. Oven, Jr., P.E., Administrator
Power Plant Siting Section
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

Larry Keesey, Esquire
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, FL 32301

Stephen A. Walker, Esquire
Southwest Florida Water Management District
2379 Broad Street
Brooksville, FL 33512-9712

Bonnie Davis, Esquire
Public Service Commission
Fletcher Building
101 East Gaines Street
Tallahassee, FL 32301-8153

John Bottcher, Esq.
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

In Re: PINELLAS COUNTY RESOURCE RECOVERY PROJECT, Application for Power Plant Site Certification / CASE NO. 83-2355

NOTICE OF APPEARANCE AND REQUEST FOR NOTICES, PLEADINGS AND ORDERS

The Pinellas County Attorney's Office hereby files its appearance as attorneys of record for Pinellas County, Florida, and respectfully requests that copies of all notices, pleadings, papers and orders to which Pinellas County, Florida is entitled, be furnished to the undersigned counsel.

DATED this 18th day of January, 1984.

Van B Cook

VAN B. COOK
SPN 72241
Chief Assistant County Attorney
315 Court Street
Clearwater, FL 33516
(813) 462-3354
Attorney for Petitioner

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Notice has been furnished by U.S. Mail this 19th day of January, 1984 to the following named persons:

JOHN BOTTCHER, ESQUIRE
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

HAMILTON S. OVEN, JR., P.E.
Administrator
Power Plant Siting Section
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

LARRY KEESEY, ESQUIRE
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, FL 32301

STEPHEN A. WALKER, ESQUIRE
SWFWMD
2379 Broad Street
Brooksville, FL 33512-9712

BONNIE DAVIS, ESQUIRE
Public Service Commission
Fletcher Building
101 East Gaines Street
Tallahassee, FL 32301-8153

1425p/0023p

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

In Re: PINELLAS COUNTY RESOURCE RECOVERY PROJECT, Application for Power Plant Site Certification /

CASE NO. 83-2355

MOTION TO EXPEDITE

COMES NOW the Petitioner, PINELLAS COUNTY, FLORIDA, and requests an expedited final hearing as required by Chapter 403, Florida Statutes, and applicable rules promulgated thereunder pertaining to Petitioner's application for power plant site certification, and as grounds therefor would state:

1. Petitioner submitted a revised application for power plant site certification pertaining to the expansion of Petitioner's Resource Recovery Project on September 6, 1983;

2. The State Department of Environmental Regulation issued a statement of completeness on September 19, 1983;

3. The Florida Public Service Commission has, by Order No. 12677, completed the final report required by Section 403.507(1)(b), Florida Statutes, concluding that a need exists for the construction of a 29 MW generating facility proposed by Petitioner, and a copy of same was furnished to the Department of Environmental Regulation on November 14, 1983;

4. Petitioner has previously negotiated and obtained a firm contract price of $53,500,000.00 for construction of the expansion facilities which are the subject of this proceeding pursuant to a construction contract executed in December 1983 which requires Petitioner to provide a Commencement Date to the contractor no later than March 31, 1984 authorizing construction to proceed. The Commencement Date cannot, by contract, occur prior to Petitioner's obtaining the subject Power Plant Site Certification required by Chapter 403, Florida Statutes. In the event Petitioner cannot provide the Commencement Date by March 31, 1984, Petitioner will be subject to renegotiation of the contract price, pursuant to the construction contract, at a higher price, to the detriment of the Petitioner and the citizens of Pinellas County, Florida;

5. The Petitioner and the Department of Environmental Regulation are in agreement that no land use and zoning hearing appears to be required, but are willing to address such issues at the requested final hearing upon the request of any party, intervenor, or the hearing officer;

6. The Department of Environmental Regulation has completed a draft of the written analysis required by Section 403.504(8), Florida Statutes;

7. Petitioner is unaware of any person or entity not required to be a party to such a proceeding who is adversely affected by said petition or who has expressed any objection or opposition to said petition;

8. The Petitioner anticipates that no more than one day is required for the conduct of the required certification hearing and is prepared to present its proposal 30 days from publication of the required notices;

9. Petitioner in good faith believes that there are no serious differences or disputes among the required parties to this proceeding and further has a good faith belief that all required parties to the proceeding have no objection to expedite said hearing;

10. Petitioner is prepared to participate in any pre-hearing conferences upon one week notice of same;

11. Petitioner asserts a good faith belief that expediting this hearing will be prejudicial to no one.

WHEREFORE, Petitioner respectfully prays:

1) that a pre-hearing conference be scheduled as soon as possible, preferably during the week of January 30, 1984 in Tallahassee, Florida;

2) that a certification hearing be scheduled for the week of February 27, 1984 at a location determined by the hearing officer;

3) that the Department of Environmental Regulation be directed to publish a notice of certification hearing as required by law, including applicable provisions of the notice requirements for a land use and zoning hearing providing that

land use and zoning issues may be included in the certification hearing upon request of any party or intervenor, on or before January 27, 1984.

Respectfully submitted,

Van B. Cook

VAN B. COOK
SPN 72241
Chief Assistant County Attorney
315 Court Street
Clearwater, Florida 33516
(813) 462-3354
Attorney for Petitioner

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Motion to Expedite was furnished by U.S. Mail this 19th day of January, 1984 to the following named persons:

JOHN BOTTCHER, ESQUIRE
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

HAMILTON S. OVEN, JR., P.E.
Administrator
Power Plant Siting Section
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

LARRY KEESEY, ESQUIRE
Department of Community Affairs
2571 Executive Center Circle East
Tallahassee, FL 32301

STEPHEN A. WALKER, ESQUIRE
SWFWMD
2379 Broad Street
Brooksville, FL 33512-9712

BONNIE DAVIS, ESQUIRE
Public Service Commission
Fletcher Building
101 East Gaines Street
Tallahassee, FL 32301-8153

1400p/0023p

BOARD OF COUNTY COMMISSIONERS

DEPARTMENT OF SOLID WASTE MANAGEMENT
2800 110TH AVENUE NORTH
ST. PETERSBURG, FLORIDA 33702
PHONE (813) 825-1565

P.O. BOX 21623
ST. PETERSBURG, FLORIDA 33742-1623

January 13, 1984

Mr. Hamilton S. Oven, Jr., P.E.
Administrator
Power Plant Siting Section
State of Florida
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301-8241

Dear Mr. Oven:

Currently, treatment of the tertiary water makeup to the cooling towers at the Pinellas County Resource Recovery Plant consists of disinfection by chlorine dioxide to maintain a free chlorine residual of 1.0 ppm. However, due to several operational factors, it is now proposed that an alternative means of disinfection be employed; this in conjunction with Section XIV.C.3 of the Conditions of Certification for the Facility.

Enclosed with this letter is a report on alternative disinfection prepared by the County's contractor and reviewed by our staff, as well as Dr. Flora Mae Wellings, whose comments are also attached. We ask that your staff review this proposal as soon as possible.

If you require additional information, please do not hesitate to call.

Sincerely,

D. F. Acenbrack

D. F. Acenbrack, Director
Solid Waste Management

ACE:ltl
Enclosures
cc: Dan Williams, DER Tampa
Gene E. Jordan, Dir, PW&U
W. W. Dasher, Dir, PW Opns
W. Gray Dunlap, County Attorney

4

462-7270

570-3354

PROPOSED

COOLING TOWER MAKEUP TREATMENT PLAN FOR TERTIARY TREATED WASTEWATER AT THE PINELLAS COUNTY RESOURCE RECOVERY FACILITY

Submitted To: Department of Environmental Regulation, State of Florida

Submitted By: Pinellas County Department of Solid Waste Management and Signal RESCO, Inc. (formerly UOP, Inc.)

Prepared By: RUST International Corporation

Date: September 21, 1983

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Conditions of Certification for the Pinellas County Resource Recovery Facility requires a minimum level of secondary treatment for the municipal effluent makeup to the cooling tower and an on-site treatment level of chlorination to assure bacterial and viral destruction. The facility is currently using effluent from the City of St. Peterburg's Northeast Wastewater Treatment Plant as its primary source of makeup but will, in the near future, switch to effluent from the Largo Wastewater Treatment Plant. The Northeast Wastewater Treatment Plant's effluent will then be used as a backup source.

Section XIV, paragraph C.3. of the Conditions of Certification provides for the use of a lesser amount of chlorination or alternate treatment if it can be demonstrated to the Department that the number of viruses entering the cooling tower can be reduced to an undetectable level. During design of the facility, permission was requested for cost and process considerations, to use chlorine dioxide in lieu of chlorine for the on-site treatment. After a favorable review by the Department the system was changed, as requested. Under actual operating conditions the chlorine dioxide feed system has proven to be uneconomical and incapable of being automatically controlled.

In the ensuing investigation into the design and operation of the chlorine dioxide feed system several facts came to light.

1. The municipal effluent currently being used from the St. Petersburg Treatment Plant is being treated to a "tertiary" level and chlorinated to ensure a "virus and bacteria free" water in the distribution system.

2. The effluent from the Largo facility will be similarly treated for the same ultimate usage.

3. Current monitoring programs have shown that the tertiary water in the distribution system is free of viruses.

We believe that the on-site treatment requirements of the Conditions of Certification can be met by supplemental chlorination, with chlorine, of the "tertiary" water makeup to the cooling tower to attain a 1.0 mg/l total residual chlorine. It is our opinion that a level of breakpoint chlorination to achieve a "free chlorine residual" is not required.

The proposed treatment plan using chlorine will provide 1.0 mg/l total residual chlorine in the makeup water. The plan provides the required reliability by using proven technology for continuous treatment. It also includes the continuation of an ongoing monitoring program to ensure that no viruses enter the cooling tower.

COOLING TOWER MAKEUP TREATMENT PLAN

I. BACKGROUND

The following is presented as background information and includes criteria used in developing the proposed treatment plan.

A. SITING PERMIT EXCERPT

Section XIV of the Conditions of Certification for the existing Pinellas County Resource Recovery Facility states the following:

C. Cooling Tower

1. Makeup Water Constituency

The Resource Recovery Facility shall utilize only treated sewage effluent, or stormwater runoff from the stormwater holding pond, as cooling tower makeup water. The effluent shall have received prior to use in the tower, as a minimum, secondary treatment, as well as treatment described in Condition XIV.C.2 below. Use of waters other than treated sewage effluent or site stormwater, i.e., higher quality potable waters, or lower quality less-than-secondarily treated sewage effluent, will require a modification of conditions agreed to by the Southwest Florida Water Management District and the Department, and must be approved by the Governor and Cabinet.

2. Chlorination

Free chlorine levels in the cooling tower makeup water shall be continuously monitored, prior to insertion in the cooling towers. Sewage effluent used as makeup shall be treated if necessary to maintain a 1.0 mg/liter free chlorine residual after fifteen minutes contact time [emphasis added]. Chlorination should occur at an effluent turbidity of 5 Nephelometric Turbidity Units or less.

3. Special Studies

Upon satisfactory demonstration to the Department that the number of viruses entering the towers in the effluent makeup can be reduced to an undectectable level with the use of a lesser amount of chlorination or alternate treatment, the above requirement may be altered. This demonstration may occur through performance of special studies approved by the Department. Alteration of the chlorination requirements must still insure adequate treatment for the control of bacterial growth in the cooling towers.

B. DEPARTMENT OF ENVIRONMENTAL REGULATION WRITTEN RESPONSE DATED APRIL 24, 1979 (See Appendix A)

The review of the application by the Florida Department of Environmental Regulation (DER) Staff discussed the proposed treatment. They were in agreement that the effluent from the St. Petersburg or Largo Wastewater Treatment Plants (WWTP), with additional chlorination prior to entering the cooling tower as makeup, "... should not significantly increase public exposure to

pathogenic bacteria or viruses." They referred to an article in this review that indicated a potential for using chlorine dioxide as an alternate to chlorination for the cooling tower makeup treatment.

The Special Studies section of the permit allows for the use of alternative methods of bacteria and virus destruction as a positive means of introducing the best available control technology (BACT) into a treatment scheme.

C. THE USE OF CHLORINE DIOXIDE AS A SUBSTITUTE FOR CHLORINE

After discussions with Water Services Division of UOP Inc., local WWTP personnel, and a comparison of the on-site treatment processes involved in the application of chlorine to the cooling tower makeup, it was resolved by UOP and technically agreed with by Henningson, Durham, and Richardson (HDR) that chlorine dioxide could be used in lieu of chlorine. Mr. D. F. Acenbrack, Director of the Department of Solid Waste Management, wrote a letter to Mr. Hamilton Oven, Administrator of Power Plant Siting for DER, (Appendix "B") requesting a change from the use of chlorine to chlorine dioxide for treatment of the cooling tower makeup. Mr. Oven recommended that a permit change should not be made, (Appendix "C") but that the use of chlorine dioxide would be allowed if the installation complied with the condition of achievement of the 1.0 mg/l free chlorine residual level.

Based on the decision that chlorine dioxide could be used in lieu of chlorine, a chlorine dioxide system was installed. The system was supplied by Water Services Division and is designed to

supply a maximum of 6.4 pounds per hour of chlorine dioxide (ClO_2) to the cooling tower makeup line. This would yield an application rate of about 6.4 mg/l to a maximum flow of 2000 gallons per minute (gpm). The chlorine dioxide solution is injected approximately 250 feet upstream of the cooling water basin level control valve providing approximately one minute of retention time at the normal makeup rate of 900-1000 gpm. The chlorine dioxide addition was to be controlled by an oxidation/reduction potential (ORP) measurement which is sampled immediately before the level control valve.

The original economic considerations for the use of chlorine dioxide in lieu of chlorine have proven to be inaccurate. At this point RUST International Corporation, successor to Procon Inc.,was asked to evaluate the existing chlorine dioxide feed system.

D. EVALUATION OF EXISTING CHLORINE DIOXIDE FEED SYSTEM

The chlorine dioxide feed system was initially evaluated on a mechanical and application control basis.The process variables include makeup flowrate, pressure at injection point, and chlorine dioxide demand. The original design basis of the system was to feed a sufficient amount of chlorine dioxide solution to maintain a ClO_2 residual of 1.0 mg/l, after a minimum 45 second reaction time, in a design 1200 gpm makeup flowrate. Problems were encountered due to a higher than expected pressure at the point of injection and the failure of the ORP probe to effectively detect the level of ClO_2 residual for control purposes.

Flowrate to the tower will also fluctuate with the cooling water system evaporation and blowdown changes.

Several schemes were developed to control the chlorine dioxide injection in response to the changes in the process variables. Further investigations into the control technology for continuously monitoring chlorine dioxide residuals in wastewater revealed that no proven instrumentation is currently available for this service. The lack of adequate automatic instrumentation has resulted in a manually controlled addition program. To maintain a 1.0 mg/l ClO_2 residual with a manual system requires a high ClO_2 feed rate to allow for fluctuation in system variables (flow, pressure, etc.). This substantially increases treatment costs for the ClO_2 feed system.

In the process of determining the new design basis required for these treatment schemes, the plant engineers and Water Services initiated additional testing of the wastewater effluent supply to the plant. In examining the results of these and other WWTP wastewater test data, it was discovered that there was a discrepancy in the way the chlorine residual was reported. This discrepancy has caused us to look more deeply into the background of the original purpose of the on-site treatment of the wastewater effluent makeup to the cooling tower.

E. NORTHEAST ST. PETERSBURG WASTEWATER TREATMENT PLANT

The Northeast St. Petersburg Wastewater Treatment Plant (NEWWTP) provides tertiary treated wastewater for distribution to a reclaimed water system in Pinellas County. The plant is an

activated sludge plant with multimedia filtration and chlorination provided. The effluent from the multimedia filters is chlorinated (7-8 mg/l Cl_2) to maintain a combined chlorine residual of approximately 1.0 mg/l at the outlet from the chlorine contact chamber. The current average daily flow of approximately 10 MGD provides an average contact time in the chlorine contact chamber in excess of 1 hour. The minimum design contact time is 26 minutes at a peak flow of 32 MGD. Tertiary treated wastewater from the City of St. Petersburg's reclaimed water distribution system, to which the NEWWTP discharges, is currently used as the primary source of cooling tower makeup water at the Pinellas County Resource Recovery Facility. In the near future, the wastewater from this system will only be used as an alternate to the Largo Wastewater Treatment Plant's tertiary wastewater.

F. LARGO WASTEWATER TREATMENT PLANT

The Largo Wastewater Treatment Plant is currently undergoing an upgrade which will provide a tertiary treated wastewater low in nutrients and suspended solids. The plant will be an activated sludge plant with nitrification, denitrification, phosphate reduction, filtration, and chlorination provided.

The plant as currently operating provides wastewater for distribution to an irrigation system for two golf courses (Airco and Feather Sound). The plant adds 8-9 mg/l of chlorine to the secondary effluent to maintain a combined chlorine residual of 1.0-1.5 mg/l at the end of the irrigation distribution system at Feather Sound (located approximately 3 miles from the plant's

discharge point). The ultimate discharge point for the plant is Tampa Bay. In the current plant, the distribution system serves as the chlorine contact chamber, whereas, in the upgraded facility a chlorine contact chamber will provide a minimum of 15 minutes contact time, at peak daily flow, prior to discharge to the distribution system.

When the upgraded plant is operational its effluent will be used as the primary source of cooling tower makeup water at the Pinellas County Resource Recovery Facility. It is anticipated that this source of water will be low in ammonia and will contain a total residual chlorine level of 1.0 mg/l.

G. CURRENT CHLORINATION PRACTICES IN MUNICIPAL WASTEWATER TREATMENT PLANTS

Chlorine is a strong oxidizer and is often dissipated in side reactions with a variety of chemical constituents contained in wastewaters. Due to the presence of oxidizable and chlorine absorbing constituents, residual chlorine in conventional secondary wastewater treatment plant effluents exists almost exclusively as a combined residual.

Ammonia is of primary concern in sanitary wastewaters where a free chlorine residual is required. Establishment of a free chlorine residual involves breakpoint chlorination and is rarely practiced in wastewater treatment. Wastewater disinfection using breakpoint chlorination is generally uneconomical since the amount of chlorine required to establish the breakpoint requires a chlorine to ammonia ratio approaching 10 to 1 (by weight).

For example, data from the Northeast St. Petersburg Wastewater Treatment Plant reveals high ammonia levels (10-15 mg/l) which indicates that a chlorine dosage as high as 100-150 mg/l may be required to reach the breakpoint. Current practice at the plant however is not to go through breakpoint chlorination but only to establish a combined residual in the plant's effluent.

H. VIRUSES AND BACTERIA

Virus monitoring programs are on-going to detect the presence of the viruses in the effluent of the St. Petersburg wastewater treatment plants. A voluntary on-site virus monitoring program for the Pinellas County Resource Recovery Facility is underway and the samples to date have shown no virus demonstrated. The virus monitoring programs are being implemented by the Epidemiology Research Center of the Department of Health and Rehabilitative Services (HRS) of the State of Florida. The Director, Dr. F. M. Wellings, has written and published several articles concerning the use of the St. Petersburg wastewater treatment plant effluent for spray irrigation.

In order to prevent the entrance of viruses and bacteria into the treated wastewater effluent distribution system both solids removal and disinfection with chlorine are used at the wastewater treatment plants as described in sections I.E and I.F.

While there is always a possibility of demonstrating virus in the WWTP effluent due to an upset in the plant, we do have the

added chlorine contact time provided by the volume of the distribution system itself. Since there is no absolute correlation between residual chlorine levels and virus destruction due to the possibility of the virus being encapsulated in suspended solids, we must depend on the WWTP to remove the solids and chlorinate prior to distribution.

Once the wastewater enters the cooling tower basin as makeup, it is in an atmosphere that, without treatment, promotes bacterial and other microbial growth. Oxidizing biocides are used on both a continual and a shock basis for the destruction of these growths for process and health reasons.

II. PROPOSED TREATMENT PLAN

From a review of the background presented and an analysis of the chemical and biological processes involved, it was concluded that an alternate treatment plan should be proposed as provided for in the guidelines outlined in the Special Studies section of the Conditions of Certification.

The plan being proposed for the supplementary treatment of the wastewater effluent makeup to the cooling tower would eliminate the use of chlorine dioxide and replace it with chlorine.

Specifically, we propose to:

a. Provide a continuous total residual chlorine monitor prior to treatment.

b. Measure the flowrate of the cooling tower makeup and provide a flow proportional signal to the chlorination

system. This will provide a primary basis for adjustment of the chlorine feedrate.

c. Provide a continuous total residual chlorine monitor sampling from the cooling tower makeup inlet after treatment. This monitor will provide a trim control signal to the chlorinator. This will serve to supplement the primary flow proportioning signal and provide for "fine tuning" the treatment system to ensure that 1.0 mg/l of total residual chlorine is maintained.

d. Provide a chlorination system that will be designed to add a sufficient amount of chlorine to the cooling tower makeup line to assure a 1.0 mg/l total residual chlorine concentration.

e. Continue the ongoing program of virus monitoring before and after on-site treatment to provide both an assurance of treatment adequacy and to create a data base to use in future applications of any treatment special studies.

f. Back up the results of the continuous monitors with regular grab samples and lab tests.

g. Continue the use of oxidizing biocides, on a "shock treatment" basis, in the cooling water system as required for microorganism control.

III. RATIONALE FOR THE TREATMENT PLAN

To rationalize the basis for the treatment plan several underlying factors should be considered:

a. The wastewater effluent supplied from the distribution system should already be virus and bacteria free and contain at least a trace of residual chlorine.

b. Any additional on-site treatment at the resource recovery facility of the cooling tower makeup water should be considered as "supplementary" and not required to be an equivalent treatment to that afforded at the wastewater treatment plant prior to entering the distribution system.

c. Virus monitoring programs are on-going to detect the presence of viruses in the effluent of the St. Petersburg wastewater treatment plants. An on-site virus monitoring program for the Pinellas County Resource Recovery Facility is underway and the samples to-date have shown no virus demonstrated.

d. Chlorine is used in municipal wastewater treatment plants for viral and bacteriological destruction and proven means are available for the automation and control.

e. The chlorine dioxide feed system now in use at the resource recovery facility has proven to be uneconomical and is not capable of being automatically controlled.

APPENDICES

A. Florida Department of Environmental Regulation Staff Comments - 5 pages

B. Letter from Mr. D. F. Acenbrack to Mr. Hamilton Oven - 1 page

C. Letter from Mr. Hamilton S. Oven, Jr. to Mr. D. F. Acenbrack - 1 page

The Florida Department of Environmental Regulation announces a public hearing to which the public is invited.

DATE AND TIME: February 29, 1984, at 10:00 a.m.

PLACE: Pinellas County Courthouse
5th Floor Assembly Room
315 Court Street
Clearwater, Florida

PURPOSE: To conduct a hearing relative to the effects of Pinellas County's proposed site for a 29 megawatt Resource Recovery power plant as required by the Florida Electrical Power Plant Siting Act, Section 403.508, Florida Statutes. Mr. William Williams, Hearing Officer, will conduct the hearing. Anyone wishing to become a party to the proceeding should contact Mr. Williams at the Division of Administrative Hearings, the Oakland Building, 2009 Apalachee Parkway, Tallahassee, Florida, 32301.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JAN 13 1984

REF: 4AW-AM

Mr. C. H. Fancy, P.E
Deputy Chief
Bureau of Air Quality Management
State of Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

RE: Pinellas County Resource Recovery Facility

Dear Mr. Fancy:

This is in response to your letter dated December 6, 1983, regarding the issuance of a Prevention of Significant Deterioration (PSD) construction permit for the above referenced facility. We agree with your position that the Florida Department of Environmental Regulation should take the lead role in issuing the PSD permit for the proposed construction. We will review the power plant siting application concurrently as part of the dual review policy for energy facilities and submit any comments for your consideration in issuing the PSD permit. Please notify us and submit a preliminary determination and draft permit when they are issued.

Sincerely yours,

for James T. Wilburn, Chief
Air Management Branch
Air and Waste Management Division

TO: Hamilton S. Oven, Jr.

THROUGH: Dan Williams

FROM: Jim Estler

DATE: January 11, 1984

SUBJECT: Pinellas County Resource Recovery
Project PA 83-18

The District received a response from BAQM on the BACT determination on January 3, 1984. Based on their response the following are our comments on the conditions of certification for Pinellas County Resource Recovery:

Air

1. Item XIV.A.1.a.(8): Subsection 17-2.600(5)(a)1., F.A.C. is quoted as the applicable regulation regarding exceedences of the 10% opacity limitation. This subsection deals with fossil fuel fired steam generators and by definition is not appropriate.

2. The maximum steam production of the unit should be specified. Compliance testing should be accomplished at ±10% of the maximum steam production capacity.

3. Item XIV.A.1.c, testing for carbon monoxide and lead should be added to the list.

4. Item XIV.A.2. Design specifications and drawings on the ESP should be submitted to the Southwest District Office prior to the beginning of construction of Phase II.

5. Item XIV.A.3. Add ...the boiler and annually from the date of testing, thereafter....

6. Item XIV.A.4.a. Add ... shall be submitted within forty-five days of testing to the DER ....

Solid/Hazardous Waste

1. Item XIV.E.6. States that "boiler residue may be placed below the maximum groundwater level without permanent leachate controls unless the residue is determined to be Hazardous Waste". This statement does not conform with the Department position on the use of Fly Ash Material, including aggregate from resource recovery facilities outlined in Ray Moreau's memo of December 19, 1983 to the

MEMORANDUM
Hamilton S. Oven, Jr.
Re: Pinellas County Resource Recovery
Project PA 83-18

District and Subdistrict Managers. The conditions of this certification should be adjusted to incorporate the agency position.

JWE/scm

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DEPARTMENT OF SOLID WASTE MANAGEMENT
2800 110TH AVENUE NORTH
ST. PETERSBURG, FLORIDA 33702
PHONE (813) 825-1565

P.O. BOX 21623
ST. PETERSBURG, FLORIDA 33742-1623

December 28, 1983

Mr. Doug Bramlett
Environmental Supervisor
Department of Environmental Regulation
Southwest District
7601 Highway 301 North
Tampa, FL 33610-9544

Re: Non-Compliance Notification Per Pinellas County Power Plant Siting Certification (PPSC)

Dear Mr. Bramlett:

The following information is submitted in compliance with paragraph 11, Conditions of Certification, covering the Pinellas County Power Plant Siting Certification (Case No. 78-11).

On Monday afternoon, December 26, during either planned Florida Power Corporation outages or "brown-outs," the switch on the lift station was tripped and failed to re-set. This allowed blow-down waters to escape through a manhole into a green area with no water escaping to control ditches.

This situation was corrected on Tuesday morning, and to insure against any further malfunctions, a contractor is pre-installing a diesel-powered emergency pump which will eliminate power failures.

Upon completion of this installation, your office will be notified.

Very truly yours,

W. W. Dasher, Director
Public Works Operations

WWD:ltl
cc: Dan Williams, Asst Dist Dir
Buck Oven, DER, Tallahassee
Gene E. Jordan, Dir, PW&U
W. Gray Dunlap, County Attorney